The Beaver

A MAGAZINE OF THE NORTH



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George William Allan, K.C.

Chairman, Canadian Committee 1925-40.

IT is not my purpose here to write a brief biography of that great Canadian, George William Allan, who died on December 6, but to attempt an appreciation of the service given by him to the Hudson's Bay Company, which, as yet, is not generally known.

Many men have speculated upon the reasons for Mr. Allan assuming an active part in the Hudson's Bay Company, at a time in life when most men would be retiring from business activities. He was then well over sixty years of age, and had a comfortable fortune. But there was no such speculation amongst his more intimate friends, because they knew that the restless energy of this hard worker, which had moved him to come west to make his career when he was nineteen years old, would be with him to the end, and would never let him retire from any activity.

He had the spirit and characteristics of his United Empire Loyalist grandfather, and really belonged to the tradition of the 18th century. He accepted life as a rough and tumble affair, full of hard realities and of hard work. This will explain his fascination for the history of the Hudson's Bay Company, and more particularly so for the great characters who had made that history.

Mr. Allan's first association with the Hudson's Bay Company started in 1911 when he became a member of the Canadian Advisory Committee, but it was not until 1925, when he became the Chairman of that Committee, that he began to take a more active part in its affairs. About that time, the Governor of the Company from London began to make annual visits to Canada in connection with its administration. He not only depended upon Mr. Allan to act as his guide and mentor throughout those visits, but a deep, personal friendship developed between them, which played some part in subsequent events.

It was not long before Mr. Allan had made up his mind that Canadian administration was necessary for the Canadian operations of the Company. In fact with his great clarity of mind he saw that the real issue might be the life of the Hudson's Bay Company, because he thought that for its continued success the administration policies would have to be changed so that they conformed with current Canadian conditions. The Company had always been managed from London—it had been so for over two hundred and fifty years, which was a magnificent record. But Mr. Allan now began to take an active part in developing a Canadian administration.

Five years later, in September 1930, the change was made, but at a time when the Company was in trouble, when most departments were operating at a loss, and when the world depression was just getting into its stride. Unperturbed by all these troubles, Mr. Allan, then seventy years of age, took over the direction of the Canadian administration, which had now been delegated by the Governor and Committee in London to the Canadian Committee.

In 1931 a new Governor and Committee was appointed in London, and they not only upheld the delegation of authority to the Canadian Committee, but actively developed their Canadian administration, even beyond the extent that perhaps was first visualized by Mr. Allan.

The success of the Hudson's Bay Company in Canada in the following decade is the real monument to the leadership of Mr. Allan. His strong and vigorous personality, combined with his cheerful optimism, gave new life to every department in those early difficult years, when economic chaos was ruining many stronger corporations. The organization of today carries the imprint of his leadership and of his character.

The influence of individuals upon the course of history makes that history, and George William Allan turned those critical years into the most important period in the history of the Company since 1870. When the record of these times comes to be written, Mr. Allan will have achieved that rare distinction of being included with the great and outstanding characters—each one of whom was a king amongst men—who have made the Hudson's Bay Company.—*P. A. Chester.*



Winter travel of yesterday. A Company officer in his carriole.

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OUTFIT 271 *MARCH 1941*

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Speed-up

Two articles in this issue deal with winter travel in the North. One describes the old-fashioned dog-team method, still widely used from coast to coast; the other, the modern way—by 'plane. Not long ago, all winter communication on the Canadian frontier had to be made in the old-fashioned way. Then radio and aeroplanes came along, and the old, easy-going North received a terrific shot in the arm.

William Gibson's recent trip from the Arctic to Winnipeg is a striking example of this. Leaving Coppermine, on Coronation Gulf, one day in January, he flew via Yellowknife to Edmonton, where he picked up some business papers at the airport. A few minutes later he was on his way to Winnipeg, where he arrived the same day, having made the trip from the Arctic Ocean in sixteen and a half hours' flying time. And all this was by ordinary, scheduled air service.

Twenty years ago, it would have taken him most of the winter to make the journey between Coppermine and Edmonton—just over a thousand miles in an air line. In fact, the cost would have put it out of the question. Even in the summer, it would have taken a month or so by water and rail. The difference that this speed-up has made in the operations of the Fur Trade Department can well be imagined.

C. S. Riley

C. S. Riley, who has been a member of the Canadian Committee since 1928, has been appointed Chairman of that board, and a member of the Company's London Committee, in succession to the late George W. Allan. Mr. Riley is well known in Canadian business circles, being president of the Northern Trusts Company, vice-president and managing director of the Canadian Fire Insurance Company and Canadian Indemnity Company, and vice-president of the Winnipeg Electric Company.

He came as a boy to Winnipeg in 1883, from Hamilton, Ontario, and after leaving school, worked for seven years with the Northern Pacific Railway. Then, in 1899, he joined the Canadian Fire Insurance Company, founded by his father, R. T. Riley.

During the last war, he organized a battery of artillery and took it overseas. After his return to Winnipeg in 1919, he organized the 5th Artillery Brigade, which is still a part of Canada's reserve army.

Yet, despite his business and military achievements, Mr. Riley is most widely known as a crack oarsman. Three times he competed at the famous Henley Regatta, and in 1910 his four won the Steward's Cup. For forty-eight years he was associated with the Winnipeg Rowing Club, and for seventeen of them he held the presidency. Now he is honorary president. Strangely enough, he was at one time a member of the crew stroked by Mr. Allan, whom he now succeeds.

Another appointment made by the Governor and Committee in London was that of P. A. Chester, general manager for the Company in Canada, as a member of the Canadian Committee.

Sir Edward Peacock

One of the members of the Company's London Committee has been appointed by the British Government to examine the possibilities of the sale of British holdings in the United States. He is Sir Edward Peacock, G.C.V.O., a Canadian who is also a director of the Bank of England, a partner in Baring Brothers and Company, and a director of the C.P.R. Sir Edward joined the Committee of the Hudson's Bay Company in 1931, and holds various other important positions in the world of international finance. The eventual object of his visit to the United States is the disposal of British interests there in order to obtain dollar exchange, and thus expedite the purchase of armaments.

Local Colour

Tom Gill, the celebrated American novelist, made his second trip to Norway House in December, gathering local colour for his forthcoming novel on the fur trade. Mr. Gill, whose thrilling serials of life in far-away places have appeared in the *American Magazine* for several years, paid his first visit there in July, to view the summer scene. Since then he has made many friends in the Company, and he has obligingly consented to act as judge in the new *Beaver* story contest. (See page 58.)

F. W. Gasston

And even if death catch people, like an open pitfall, and, in mid career, . . they should be at once tripped up and silenced; is there not something brave and spirited in such a termination? and does not life go down with a better grace, foaming in full body over a precipice, than miserably straggling to an end in sandy deltas? When the Greeks made their fine saying that those whom the gods love die young, I cannot help believing they had this sort of death also in their eye. For surely, at whatever age it overtake the man, this is to die young. Death has not been suffered to take so much as an illusion from his heart. In the hot-fit of life, a-tiptoe on the highest point of being, he passes at a bound on to the other side. . . .

These words of Robert Louis Stevenson's are as fitting a commentary as we know on the recent tragic death of Fred Gasston. Though still a young man, he had already become, by virtue of his appointment as manager of the Wholesale Department, one of the four senior officers of the Company in Canada.

His boyish charm and enthusiasm and his cheery smile attracted everyone who met him, and with closer acquaintance, that attraction grew into admiration for his personal qualities no less than for his capabilities as a business man.

Possessed of remarkable driving force as well as ability, it seemed that a long life of success lay ahead of him. Before his most recent appointment last year, he had already filled the responsible positions of comptroller of the London office of the Company and secretary of the Canadian Committee. But death cut short that promising career, when the aeroplane in which he was flying home on February 6, crashed in an Ontario forest.

So one more name is added to the long roll of those who, in the past two hundred and seventy years, have died in the active service of the Hudson's Bay Company.



H. B. R. S.

Page proof for the *Minutes of the Council of the Northern Department, 1821-31*, the third volume of the Hudson's Bay Record Society, has been corrected and sent back to England from Toronto. A copy has also been sent to *The Beaver*, but it does not include Professor Innis' introduction. The volume will certainly be a most valuable source book for the fur-trade history of this era, which immediately succeeded the union of the two companies. Besides the 300-odd pages of minutes, there is a 100-page appendix made up of letters from the London office to the Northern Department, Simpson's reports to London, and a selection from the correspondence of the Northern Department. And as before, there is a series of biographical sketches.

On account of wartime difficulties, the publication date of this third volume is still indefinite, but the next *Beaver* will carry a full-dress review of it. Dr. W. Kaye Lamb, who is writing the introduction to the fourth volume, is looking forward to its publication next fall. It will throw much light on that subject which has been kept so much in the dark, John McLoughlin's correspondence with the Governor and Committee.

On the Screen

The Paul Muni picture, *Hudson's Bay*, is going great guns. All through the United States and Canada it is being "held over." Moviegoers in such widely separated points as Brooklyn, San Francisco, and New Orleans have flocked to see it. At the Roxy theatre in New York it attracted the third largest crowd of any picture in twelve months, and in two days alone over fifty thousand people paid to see it there. In Western Canada, where it opened simultaneously in Winnipeg, Regina, Saskatoon, Calgary, Edmonton, Victoria and Vancouver, it grossed half as much again as any 20th-Century-Fox picture, and has placed among the four most popular pictures ever shown.



Contributors

Among the contributors to this issue, *Dr. A. D. Bajkov* is a Russian biologist who has made his home in Canada for many years. He is especially interested in fish biology, and in the ice conditions of Hudson Bay, on which he writes here . . . *J. A. Burgesse*, an ex-H B C fur trader, now living in Chicoutimi, P.Q., will be remembered as the author of "Our Abused Aborigines" in the last issue. He is a mine of information on Eastern Canadian Indians, and has assembled a fine collection of their artifacts, including snowshoes . . . *Kenneth Coppock* is an author who lives in the thriving western city of which he writes . . . *Paul Davoud*, who took the aeroplane photographs to illustrate "Wings Over Snow," was in charge of transportation for the Company, and is now an instructor with the R.C.A.F.

Readers of the December 1939 *Beaver* will recall *S. G. L. Horner's* article on the Company radio stations in the North. He is the H B C radio technician, and in this issue tells of the important war work being done by our fur traders and others along our lonely northern coasts . . . Professor *Robert F. Legget* is a member of the Department of Civil Engineering at the University of Toronto. He was engaged last summer on advisory work for Mackenzie River Transport . . . *Duncan McLaren* is now piloting the large Company Beechcraft, CF-BMI. He was co-pilot on the inspection flight through British Columbia and the Western Arctic a year ago . . . *Gontran de Poncins* is the author of the fine Arctic story "Kabloona," published serially in the *Atlantic Monthly*, and appearing this month as a Book-of-the-Month Club choice. His beautiful studies of Eskimo seal hunters, taken while he was staying at some of our Arctic posts, featured the March 1940 *Beaver*.

Mrs. George Ray's husband was in charge of York Factory at the time of which she writes . . . *A. F. Sherzer*, professor of engineering at the University of Michigan, took the *Nascopie* trip in the summer of 1939, and is a frequent visitor to James Bay. His coloured movies of the Arctic voyage are even more remarkable than the "stills" we reproduce on the cover and elsewhere . . . Father *Paul Schulte*, "The Flying Priest," needs no introduction. . . .



Erecting the Wincharger at Cape Smith, Hudson Bay.

THE NORTH ON GUARD

by S. G. L. Horner

SINCE the beginning of the present war, all sorts of speculations have been made—privately and in print—as to how, when, and where (if at all) Canada may be attacked from the air. It is a commonplace that one of its most vulnerable portions is the great unpopulated North, which is nearer in an air line to Europe than any other part of this continent, and where enemy planes or submarines might land in innumerable lonely places, almost unobserved.

Almost, because the chances that they would be seen are very good. The Royal Canadian Air Force has organized along Canada's coasts what is known as the Aircraft Detection Corps. It is composed of such people as fishermen, forest rangers, lighthouse keepers, lumberjacks, R.C.M. Policemen, and H B C fur traders—all giving their services without pay.

In the Arctic, fifty-odd Company men and a score of Government radio operators are aided by some two thousand Eskimos, who report any strange craft, seagoing or airgoing, that swims into their ken.

Fortunately, only certain areas can be used as landing places for enemy planes or ships, and it is there that most of our "northern army" is on duty. The rest of the volunteers are sparsely scattered along the barren coasts. The key men at the posts and radio stations have been instructed how to recognize the various types of enemy planes that are liable to be used for bombing flights and have special instructions and schedules for reporting any strange aeroplanes observed in these remote regions. All the other people of the North are on continual watch for strange craft, either in the air or on the sea, and the keen-sighted, keen-hearing "little brown men" of the North are as efficient 'aircraft detectors' as one would wish to have.

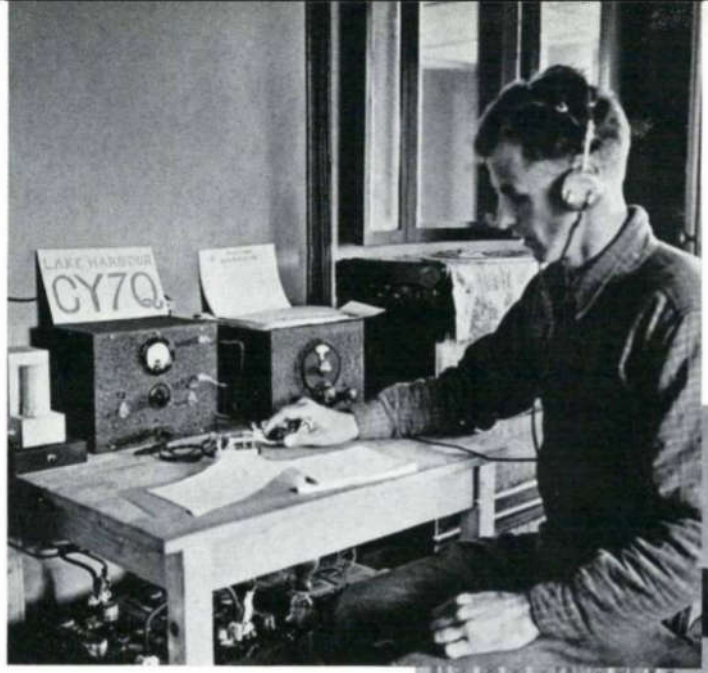
This civilian air protection body in the North is, of course, chiefly on its toes during the summer months, when long hours of daylight and waters open for navigation make the North a far more vulnerable point in our defence than at any other time of the year. During the past summer, many instances occurred in our eastern Arctic which proved this northern protection corps was right on its toes.

One such case was that of a new Hudson's Bay Company transport diesel vessel being taken into James Bay via Hudson Strait, which, early one evening in August, had to tie up in a seemingly isolated, uninhabited cove on the rugged shores of the strait. The next day, when the weather moderated, the vessel proceeded on its journey and called in at an H B C trading post which was fifty miles further down the coast. There, much to the captain's surprise, it was found that the vessel's movements since the evening before were fully known. Of course, the answer to the mystery was that the Eskimos, who were seal fishing with their families along the shore, had relayed the information on the strange vessel to the trading post.

Another instance was that of a trading schooner, which was carrying trade goods to several places in Hudson Strait and Bay during the months of July and August. This vessel was painted very much like a ship of war, being the same battleship grey colour, and during the summer months its movements were completely reported to various radio-equipped centres in that region by the ever-watchful natives.

But there is another kind of war work in which the radio men of the North lend a hand—a work whose results extend far into the war zone. In the past six years many Hudson's Bay Company fur trading posts (see *The Beaver*, December 1939) have become equipped with two-way shortwave radio transmitters which have become united into a private commercial system, all working into and controlled by Government stations. These stations stretch as far north as Arctic Bay, 1200 miles from the pole, and are scattered throughout the North at distances ranging from 50 to 300 miles apart, and from their control station from 20 up to 700 miles.

Prior to the war, many of these stations, situated north of the Arctic circle, were found to be invaluable for weather observations, as it is up in these northern wastes that the foremost meteorologists in the world claim the weather conditions of the northern hemisphere originate. With the advent of war, these daily





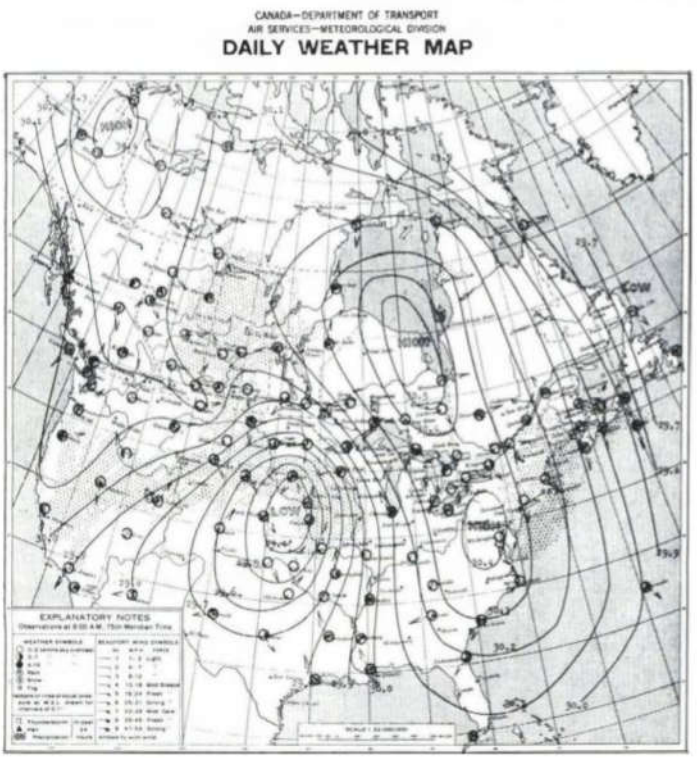
H. B. and Arthur Figgures, brothers in the Eastern and Western Arctic, send their messages from Lake Harbour and Maitland Point.

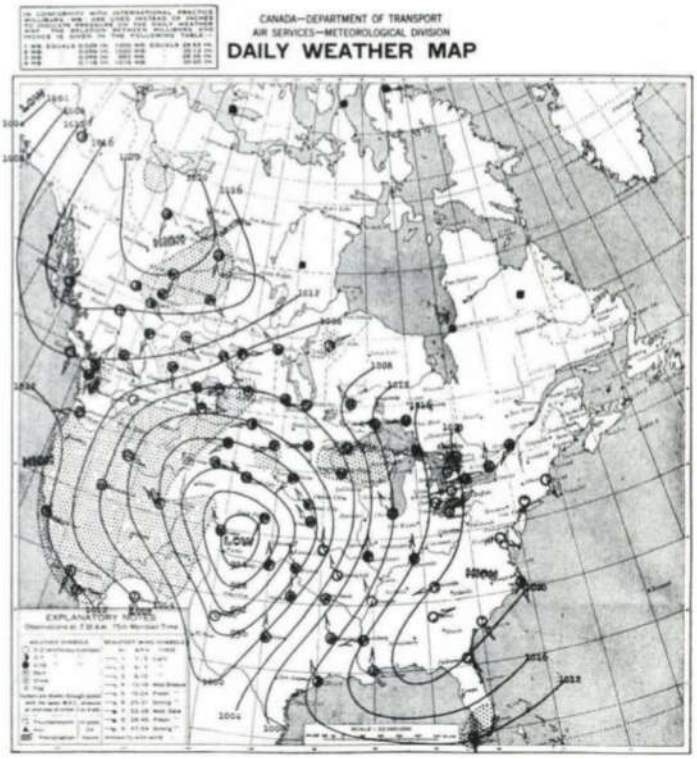
weather observations from stations in the North became doubly valuable, both to us and to the enemy, for so far reaching are modern forecasts, that weather observations from these regions are of invaluable aid to the enemy's bombing raids on Britain.

In fact, some idea of how valuable the enemy consider weather observations may be gathered from the press report which appeared not so long ago stating that a German armed force had tried to capture a similar type of weather observing station in Greenland.

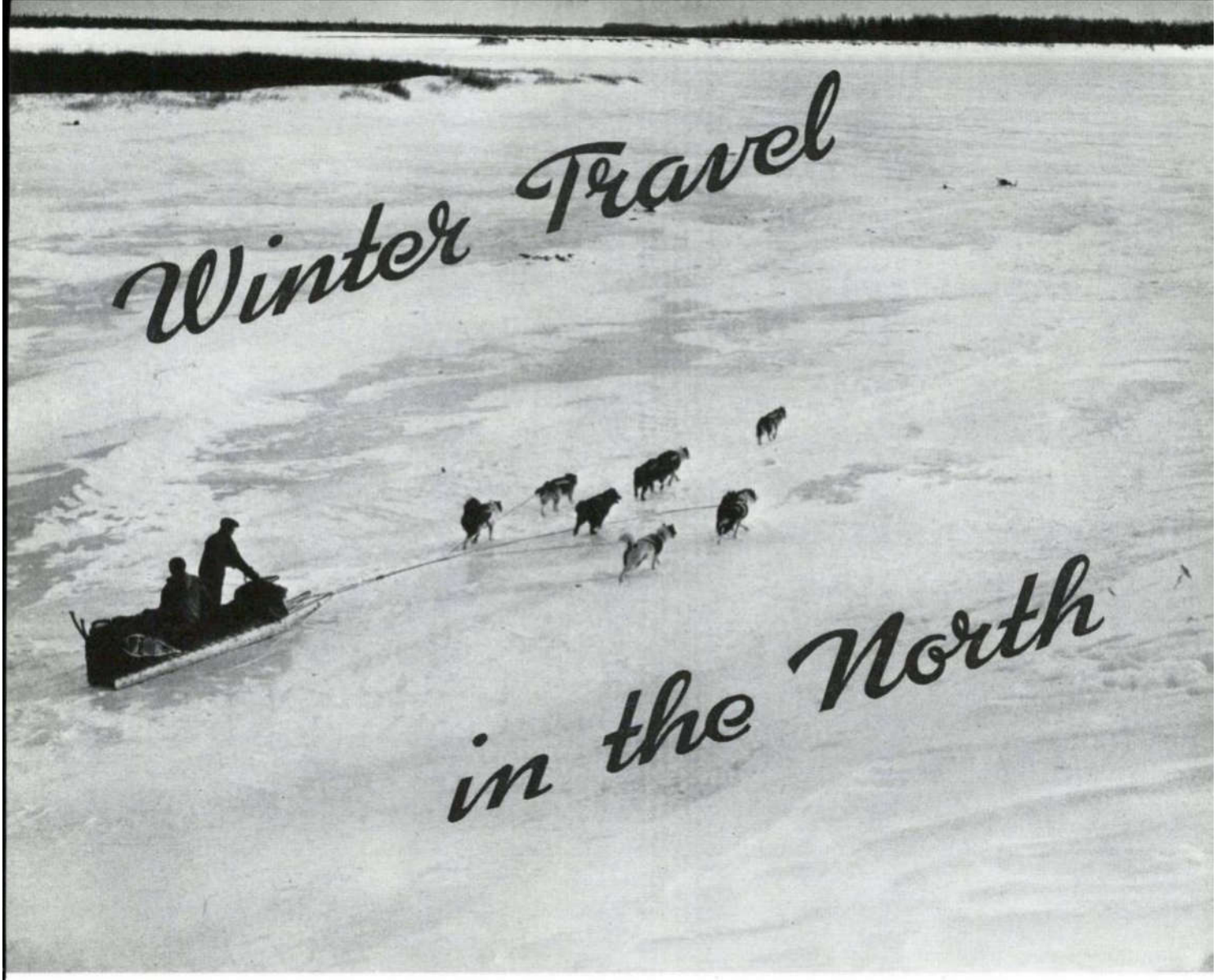
These men of the North, therefore, find themselves responsible for important daily work that affects our whole national air defence, as well as that of Britain and our neighbors to the south. The work, which has to be carried out in conjunction with their routine fur trade or Government work, has doubled since the beginning of the war, for, to prevent this information from being "listened in" on by the enemy, it now has to be all translated into a special secret code before being transmitted. Many readers will have noticed the daily meteorological map of Canada, which shows weather observing stations all over the Dominion, has, since the first few weeks of war, become a complete blank as far as the northern regions are concerned. This, of course, is for the same reason as the using of the special secret code. Such, then, are part of the duties of the Hudson's Bay Company fur traders and Government men who form the backbone of the "northern guard."

Government weather maps for Feb. 1st 1939 and Feb. 12th 1941. The black squares added to the wartime map are H B C meteorological stations in the "Hudson's Bay blankout" area.





Winter Travel in the North



Komatik drawn by nine dogs in fan hitch, leaving Moose Factory for the trip over the sea ice to Great Whale River.

Eight experienced H B C travellers give their opinions on the subject.

BROADLY speaking, northern travel may be divided into two main classes: 1, travel in the Woodlands; 2, travel in the treeless regions where the Eskimos live, which are usually referred to as the Arctic. Those who travel in the North generally have their own ideas on how to do it. They express varying opinions on what to wear, what to eat and drink, what equipment to take, and how to make oneself comfortable. All these depend, of course, on weather conditions, as well as on the natural products of the country.

Since the days of Radisson and Groseilliers, Company fur traders have been learning the art of winter travel. A few of them, like Thomas Simpson and Dr. John Rae, established reputations as hardy travellers throughout the North. In the following article some of the most experienced H B C travellers of present times have expressed their opinions on the subject. Their information has been grouped under the two regional headings, as above, and then subdivided as to subject.

Travel in the bush proper has been dealt with by R. A. Talbot, manager of the Saskatchewan district, who has had many years experience on the trail in all weathers. J. W. Anderson, manager of the Ungava district, who has worked in the fur trade for over thirty years, chiefly in the James Bay area, has contributed information on that region. Travel along the shores of James Bay is made in winter on the sea ice within a few miles of the wooded shore, so that his remarks apply in a sense to both forms—bush and barren land.

In regard to the Arctic, our information has been supplied by William Gibson and L. A. Learmonth, who have done a great deal of winter travelling in the Central Arctic; by D. A. Wilderspin and Chesley Russell, who know the Eastern Arctic well; and by R. H. G. Bonnycastle and R. H. Kilgour, whose travels have been mainly through the Western Canadian Arctic.

It should be remembered that little Arctic travel is done in the depth of winter, owing to the shortness of the days.

Arctic

CLOTHING—In the Arctic, caribou skin is chiefly worn for clothing, though in the Eastern Arctic skins are so scarce that duffle or blanket cloth is generally substituted. A pull-over skin shirt with hair on and a hood trimmed with fur is generally called an *artiggi*, *artikie*, *dickie*, *koolitak*, or what you will; but to avoid confusion it will be referred to in this article as a parka. A beret is the ideal head covering to be worn underneath its hood.

Woollen underclothing is not recommended since it soon becomes damp with perspiration and very chilly when camping time comes around. Instead of wool, caribou skin is worn—one parka with hair inside next to the skin—or next to a cotton undershirt—and another with hair outside. The inside parka, after one is snug in camp, can be turned inside out, when all moisture adhering to the deer hairs quickly freezes and can be knocked off with a wooden snow beater. This leaves the garment perfectly dry.

For trousers, the same material is used—one with the hair out and the other with the hair in, reaching to just below the knee. Or the inside ones may be ankle length. For the outside pair of trousers, polar bear skin is preferred by some since the snow can be shaken out of them better and they do not gather dampness as readily. Their only drawback is, they are bulky. The eiderdown trousers are worn in Ungava, where eider ducks are plentiful and caribou scarce, and in the Mackenzie Delta; but they tend to collect dampness. When double parkas are worn, they are left outside the camp at night, since bringing them into the snow-house will thaw out the frost that gathers between them and there is seldom enough time or heat to dry them out on the trail. Another parka is carried for wearing around the camp. Instead of the trousers with hair out, drill trousers may be substituted.

Caribou skin socks are worn by some reaching above the knee with the hair in, and a pair of short socks or slippers with the hair out. Others wear short skin socks covered by duffles. Over all are worn a pair of knee length boots, made of caribou-leg skin with the hair out and soled with moose or caribou hide. In the Eastern Arctic, boots are usually of sealskin. Mitts may be of bearskin or wolf skin lined with loose duffle mitts, or of caribou skin with no lining. Canvas gloves are handy for hitching up the dogs.

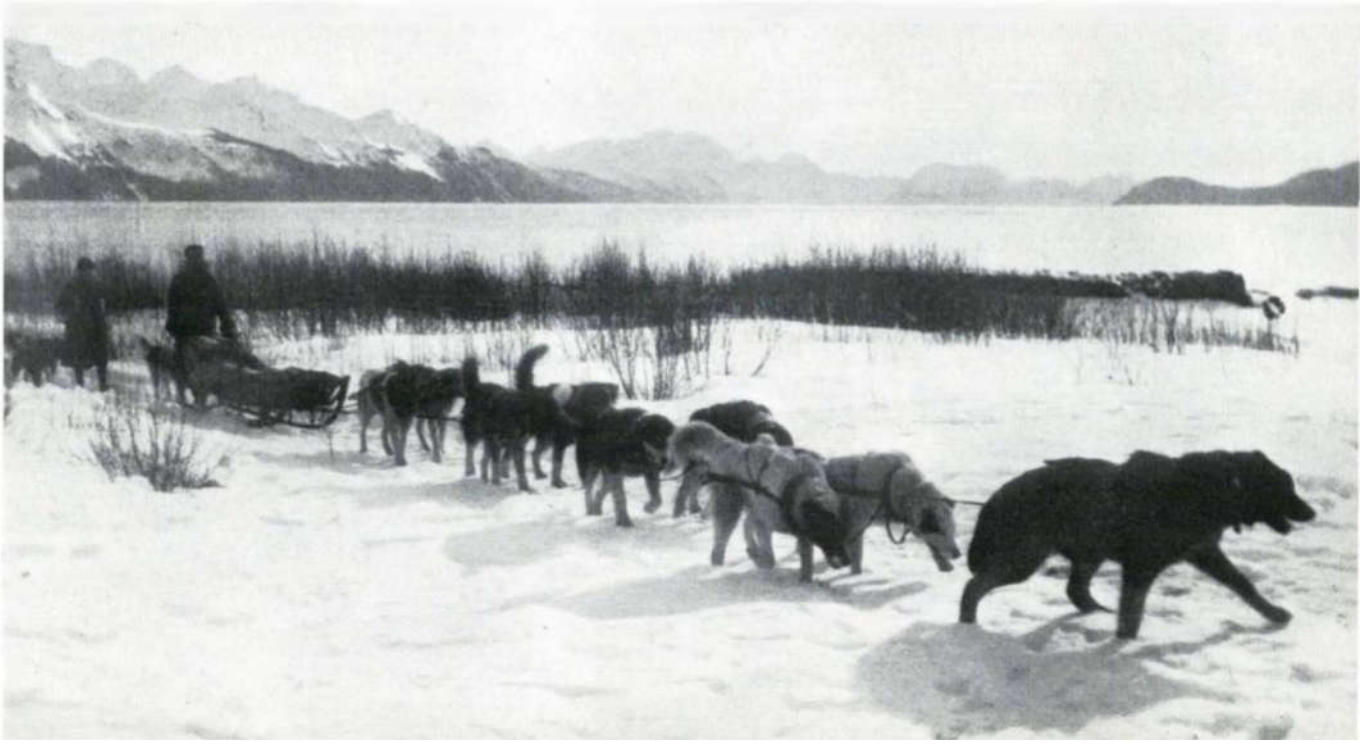
For storms, a white cotton snowshirt worn over the two parkas is useful, especially if it has a draw string around the face, and a sash around the waist makes all snug. In warmer weather the snowshirt is substituted for the outside parka. In addition to this, a strip of caribou skin, about nine inches long, is sometimes placed between the chin and the parka hood. As it collects frost from the breath, it is drawn out another inch or so and thus permits the chin to lie on dry skin.

FOOD—A useful food to carry in the Arctic is hash made with boiled beans cooked with corned beef, etc., and frozen. It is then broken up small with a hammer and placed in cotton bags. Arctic travellers generally take in addition to this, pilot biscuits, dried fruits; dehydrated vegetables and rice for stews; sugar, salt and pepper; Bovril as seasoning for soups and for "lay-overs"; sardines, which are handy for lunches as they can be thawed out in the pocket while travelling; rolled oats for the morning cereal; bannock or doughnuts made with lots of shortening and sugar to prevent them freezing hard; and chocolate and raisins. Meat may be either frozen caribou meat cut thin to ensure quick cooking, small hamburgers, or bacon sliced thin and frozen. Any beverages, other than tea and coffee, are liable to cause thirst in time. Tea tablets are handy to carry. Butter often freezes too hard for practical use but is a little extra that is appreciated. Frozen trout is also carried.

Living off the country hardly concerns the Arctic traveller these days, as it is usually just a case of stocking up between Hudson's Bay posts much as one might do here in civilization between gas stations. It is unwise to depend on living off the country unless one is certain of crossing the tracks of deer.

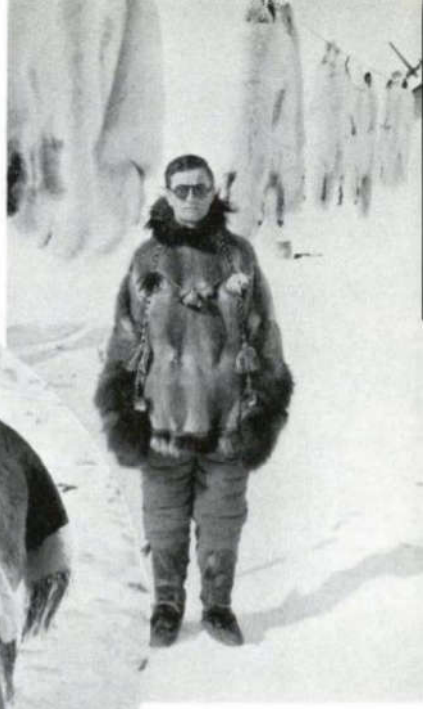
DOG FEED—As in the Woodlands, dog feed depends on the locality. In the main, it may be said that the most easily available form of food is chosen, and a dog generally thrives on whatever he has become accustomed to. In Ungava it may be salmon. Across Hudson Strait, it may be seal or walrus meat. Farther north

Basket sled drawn by nine dogs in Nome hitch, Western Arctic.



it may be whale meat. Where neither fish nor meat is obtainable, the dogs are given cooked cornmeal mixed with seal oil or fat. In the Central Arctic, dried sea trout is used, mixed with seal fat or frozen seal meat, then cut up small and sacked. On the other hand, some people consider dried fish as the poorest form of dog feed, and prefer seal meat, chopped small, carried in sacks, and fed while still frozen. "Green" fish is good but too heavy to carry. Dogs are fed daily, or sometimes every two days, especially on long journeys.

Dress





William Gibson in caribou skin parka, the inside hood rimmed with wolverine and the outside with wolf. Father Henry in duck parka lined with caribou skin or duffle. Taken by L. A. Learmonth, King William Land, in April.



Above: Arthur Figgures in the Mackenzie area wears a parka of muskrat bellies, wolverine hood rim, bearskin gloves, eiderdown trousers, and caribou leg boots with moosehide soles. Left: N. A. Wilding at Moose Factory in Eskimo style outside parka and short pants of caribou skin, duffle leggings, and moccasins for use with snowshoes.

Those that have been raised on walrus or seal meat do not thrive if changed to a fish diet.

EQUIPMENT—For cooking and heating, primus stoves are in use throughout the Arctic. Tools and repair parts are always taken along. On the off chance that they go wrong and cannot be repaired, an Eskimo *kudlik* or stone lamp is sometimes taken.

For building a camp at night the traveller takes snow knives and a native shovel for heaping up the snow around the bottom of the igloo.

Near the Mackenzie delta, where drift wood is plentiful, a tin camp stove and a tent may be used for short trips.

A sleeping bag of double caribou skin is preferred by some, though others like to use an eiderdown bag; underneath are placed caribou or bear skins instead of the ground sheet that is used in the woods. In some parts of the Arctic, a mat made of willow twigs is laid between the skins and the snow. A small hand axe is useful—not for chopping trees, since there are none—but for chopping out a trail through the ice, and so on. Then there are several small personal articles, such as a knife, matches, snow goggles, and a compass. Oil for the primus stove is taken in a good container, and a flashlight with enough batteries to cover the trip. This is carried in the pocket during the afternoon to use in case darkness comes on before one reaches camp. Candles are also taken along, or a lantern.

Lashing ropes for the load are necessary, sled wrappers are used in the Eastern Arctic, and repairing material for both clothing and broken dog harness is carried. The former consists of sinew, moose hide, needles, thread and thimble; the latter of extra webbing, string, awl and a sailor's palm. A first aid kit is also useful, containing iodine, bandages, and so forth.

A 30/30 rifle may be taken in case food is met with on the hoof. To prevent dogs from straying, the traveller in the Central and Western Arctic takes a light wire rope with a chain for each dog. As in the South, a thermos, wrapped in caribou skin, is extremely useful for lunches on the trail. In the way of cooking and eating utensils, the traveller takes a tea pot, a frying pan, plates, knives, forks, and spoons, and cups, as well as a large pot for melting ice and a few miscellaneous cooking utensils. Last, but not least, he takes along a small piece of bear skin for icing the runners of the sled, a fifteen inch jackplane for smoothing down the shodding and perhaps some spare mud (see below).

Dog Sleds—Where there are no trees to stop the force of the wind, the snow becomes so hard packed that a sled with runners will not sink more than a couple of inches, if at all. East of Coppermine, the low-slung Eskimo *komatik*, fourteen to sixteen feet long, is used. The runners are of solid wood, joined by wooden cross pieces lashed on by a sealskin line. Seven to twelve dogs are hitched to the main draw line, each by a single trace. The dogs then spread out fanwise, and in this way at least some of them are able to get a good foothold when rough terrain is encountered. With their long lines they can often reach the top of a hill before the sled starts to ascend, and thus take the strain more easily.

In the early winter, and again towards spring after the first week in March, steel shodding is used on the *komatik*, usually two and a half inches wide by one eighth inch thick. In midwinter, however, mud shodding is used. The driver selects a black loam, dug from some marshy spot of ground, puts it into a big cauldron, and works it up to the consistency of putty. Turning the *komatik* runners up, he then plasters this mixture about two and a half inches thick, somewhat after the shape of a balloon tire section over the entire length of the runners. This is smoothed off as evenly as possible with the hands and freezes hard overnight. In the morning, using his jack plane, or a wood rasp, the driver will smooth down these earthen runners from one end to the other. Then taking a piece of blanket cloth or polar bear skin, he will rapidly brush over the entire surface of the runners with warm water, from a thermos—or from his mouth. In the process of doing this, the driver runs back and forth as rapidly as possible, and in the frosty air, this thin coating of warm water freezes immediately, giving a remarkably frictionless glassy surface, which greatly facilitates midwinter travel. This is done daily, or oftener. In the spring, when steel runners again slide more easily over the warmer snow, this shodding is knocked off. But if bits of it are knocked off in the winter, they are carefully saved.

The dog's harness can be made of heavy eight ounce duck, or of webbing and is a simple affair, with no collar, that loops around the dog's shoulders and under his chest.

In the Western Arctic the "Nome" hitch is used instead of the "fan" hitch. In this arrangement the dogs pull two and two along a centre trace, with a single lead dog. The natives generally use the above type of harness with this, but the white men favour the type used in the woodlands—that is, with a collar. The wheel dogs—those nearest the sled—and the leader are allowed a trace six feet long, the others being about five feet. The ideal number of dogs on a long trip with a moderate load, is nine. When standing still, the sled is sometimes anchored by a grapnel at the end of a rope.

The Alaskan type basket sled, of hickory lashed with babiche, widely represented by artists as the only kind anywhere in use in the North, is seen only west of Coppermine. It is shod with steel or hardwood, never mud.

Opinions differ as to the best way to load a komatik. Some say the bow should be lighter than the stern, so that it can be more easily lifted over obstructions and bare ground. Others that the sled rides and steers more





Loading

Left: Pulling the sled wrapper over a toboggan load of fur bales at Norway house. Above: Loading a komatik at Moose Factory. Harvey Bassett photos.

easily if the weight is in front. While still others believe in putting most of the weight in the centre so that the sled, which is slightly convex, will swing more easily on its middle.

Dog feed is put on the cross pieces before the sled wrapper is placed in position. Coal oil is placed away from the grub box, sleeping skins, and bedding. The dog line is placed in a sack and loaded last. When the wrapper has been lashed in place, the rifle, ammunition, axe, and snow knives, are placed on top of the load. Useful also is a small zipper bag strapped on top, and containing such things as cigarettes, gum, chocolate, handerchief, mitts, compass, etc.

PRECAUTIONS—Where the traveller is doubtful about the strength of the ice, he tests it with an ice chisel or an axe. On sea ice, he stays on the beaches, since any offshore breeze is likely to take the ice out. Likewise he avoids the wide tide cracks, as they have overhangs. In the spring, when water starts to collect on freshwater ice, he sticks to the beaches of the lakes, as the ice candles and rots much faster in deep water. Should he be caught on thin ice, he gets down on hands and knees and crawls to safety.

If the traveller becomes lost, the best plan, if it is still daylight, is to make for the highest vantage point in the vicinity and try to locate some familiar landmark. If night is coming on, he makes a snowhouse and camps, thinking carefully over the route he has come and trying to find any mistake in direction. It is useless to keep on travelling, tiring out himself and his dogs, until he is sure where he is going. If he is not too far from camp, he gives the dogs their heads, and provided the wind is right, they will find the way home.

FIRES—East of the Mackenzie area, there is no wood to build a fire with, drift wood being much too precious to burn. There is, however, a sort of Arctic heather that can be gathered and burned in spring and summer. Primus stoves, as explained in the section on food, are used for both cooking and heating. But in case the stove goes wrong, some travellers carry a small *kudlik* (stone lamp), which burns seal oil with a moss wick. It is used for cooking food, and giving light and warmth to the snowhouse.

CAMPING—During the dark period, from November to January, camp is usually made after travelling 20-30 miles. The day's journey then depends largely on the moonlight. After mid-January, the average day's travel is 35-45 miles. The snowhouse is the ideal shelter. It is clean, comfortable, and windproof. It conserves the heat much more efficiently than a tent. And if the traveller is returning by the same route, it can be sealed and used again. A snowhouse big enough to accommodate two people can be built in about forty-five minutes.

The snow from which the blocks are cut must be well packed and of the same consistency throughout. One man cuts and places the blocks while the other looks after the dogs and unloads the sled, after which he fills in the chinks between the blocks with loose snow. When a "chimney" has been cut in the top of the house the primus stove or kudlik lit, the supper is prepared, the skins are spread over the raised sleeping platform, and when the dogs have been fed, the travellers bed down for the night.

Woodlands

CLOTHING—For head gear, a cap with ear flaps is worn or a woollen toque—something small over which the parka hood may be easily pulled. The parka is of deerskin with fur trim, or in the woods one made of duck. Underwear is of heavy wool and a shirt of heavy flannel, while socks are also of heavy wool, not lighter than three and one-half pounds; duffle socks are worn over these. Pulled over the shirt is a light weight woollen sweater. For travel over the sea ice, a Hudson's Bay blanket windbreaker is worn and a deerskin parka with fur trim; or a Hudson's Bay blanket parka, covered with a light cotton windbreaker. In the more sheltered woods, however, a duck windbreaker with a hood is favoured; or sometimes ordinary overalls are good as windbreakers for the whole body.

Trousers may be of deerskin in the Hudson Bay region, but may also be of heavy mackinaw or whipcord as worn in the woods. Mitts may be of moose hide or deerskin, lined with Hudson's Bay blanket cloth; or some prefer one pair of woollen mitts inside a pair of leather mitts. Over socks, moccasins are worn and in the woods a pair of moccasin rubbers comes in useful for wet snow around the campfire.

FOOD—The staple diet for woods travel is the three B's—Bacon, Bannock and Beans. It is as well, however—if there is room on the sled—to start off with prepared foods such as pre-cooked meat balls, bannock or bread, dried fruits, frozen fresh meat, frozen cooked potato balls, and frozen baked beans.

Tea makes the best drink, but powdered milk may be taken along as well.

Chocolate, sugar, and a little jam and butter may be included, and, of course, salt.

DOG FEED—Dog feed depends on the locality. Where white fish is obtainable, the dogs are fed two or three a day, the fish averaging three pounds. At each resting place on the trail, where the traveller

Icing sled runners with a piece of bearskin, Coronation Gulf. Right: The mud shodding is knocked off when spring comes to James Bay. Photos by R. H. G. Bonnycastle and J. W. Anderson.







Lunch on the Trail

On New Year's Day in James Bay, J. W. Anderson and Norman Ross (left) carry the grub box from the front of the komatik to a sheltered spot on a wooded point they are crossing. In the woods, the fire is built on green logs and the lunchers sit on spruce boughs. Note the Cree type snowshoes.

stops long enough to have a "mug-up," each dog is given about a pound of frozen fish. At the end of the day, when camp is made, he is given two fish, thawed out.

Where good fish is not obtainable, the driver prepares an oatmeal mush mixed with fat or fish. For mixing this, he carries a ten-gallon cooking pail.

EQUIPMENT—In Hudson Bay travel where the woods are not thick, the traveller takes along an 8x10 duck tent with a stove-pipe hole in the roof, and a light stove with pipes. In the bush country, however, the hardier traveller does without a tent and warms himself and his food by means of a campfire. He takes along a bed roll, preferably of eiderdown. Some prefer a ground sheet to place underneath the bed roll.

For meals he takes a tea pail, a tin plate, a knife, fork and spoon, and his food is carried in a grub box. He carries matches in a waterproof case, an axe for cutting firewood, a heavy duck wrapper for his sled or toboggan, and a sled-lashing of rope or sealskin. A thermos is useful for lunches when a fire is not made, as in the case of Hudson Bay travel.

Snowshoes, when travelling with dogs in James Bay, are generally the flat kind. These are handier when unravelling dog traces. In other districts the types vary (see article on Snowshoes in this issue). Snow goggles are useful for flat stretches of country where there are no trees, and in case one is storm-bound, a book is taken along. Needless to say, most travellers take a camera.

DOG SLEDS—Where travel is through the deep, soft snow of the woods, a toboggan is used, drawn by five or six dogs in single file. The prow of the toboggan is high, narrower at the top than the bottom, and has a long line attached to it. With this line, the driver holds back the toboggan when it is sliding down hill, and thus prevents it from running into the dogs.

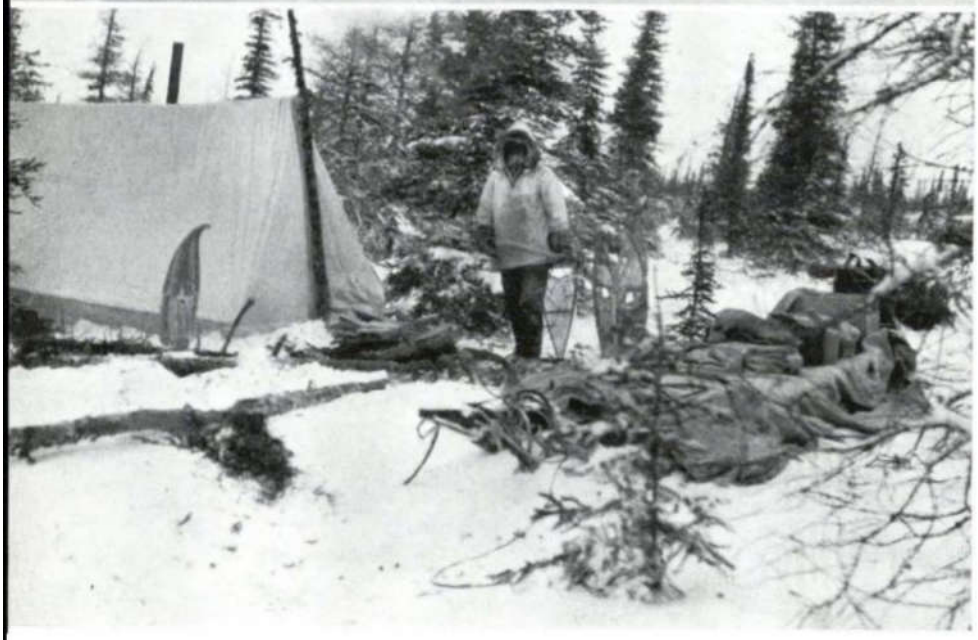
On the narrow trails through the bush, care is taken to see that the load is not much wider than the toboggan. Each dog draws about a hundred pounds.

In some parts of the woodland areas of Canada, the snow is so deep that dogs are useless. Here the traveller draws the toboggan himself, with a tumpline around his shoulders. Needless to say, he takes as little as possible—a bed roll, an axe, and his grub.

PRECAUTIONS—The dog driver generally goes ahead testing the ice. In any event, it is wise to avoid black ice in the spring. Even if the traveller does not go in beyond his ankles, he at once changes his footgear, since wet feet in the winter are decidedly dangerous.

If by any chance the traveller loses his way, he makes a small fire as soon as he can, and waits for the guide to follow his tracks and find him. It is a mistake to lie down in the snow to rest, and no matter how thirsty he is, the wise traveller avoids eating snow.





Camping

A snowhouse is the ideal shelter in the Arctic. Below: Camp is made on the edge of the woods in James Bay, and the guide chops enough wood for the night before darkness comes. Photos by J. G. Cormack and T. Thompson.

FIRES—Dead tamarack makes the best firewood. Green birch in a stove burns longest. Cedar gives off sparks. A fire in the snow is built on top of green logs, so that it will not sink out of sight.

When travelling along the shore of Hudson Bay, no fire is made for lunch unless one happens to be crossing a wooded point, since the line of march is generally three to five miles from shore. Lunch consists of biscuits and a hot drink out of a thermos, but time is taken to re-ice the runners of the komatik with hot water from another thermos.

CAMPING—Camp is made before dusk, thus avoiding accidents through chopping wood in the dark. In the deep woods, a simple brush camp is made in the shelter of a good wooded bluff, and a long camp fire is made for cooking supper and keeping the traveller warm while he sleeps. A tent is considered unnecessary by experienced travellers.

In Hudson Bay travel, where the trees are not so thick, a sheltered spot is selected at the edge of the tree line, to avoid any heavy, soft snow farther in the woods. First the tent is erected, while the dogs rest in the snow. Snowshoes are then donned, and an area the size of the tent tramped down and firmly packed. Next, spruce boughs are cut and spread over the area to be covered by the tent. Tent poles and pegs are cut, and the tent put up. When it is firmly pegged down, snow is banked up around the walls to keep out the draught. Then the stove is set up and the fire started.

The next job is to remove the load from the sled and place the grub box, bed rolls, and so on, inside the tent. The tea pail is filled with snow and set on the stove, the dogs are unhitched and their harness removed. Then a chain is snapped on to each dog's collar and a bed is made for him at the foot of a spruce tree—to which he is chained—by tramping down a hole in the snow and lining it with boughs. The driver next makes a big fire outside, and cooks his dog food in the large kettle. He also trims the surface of the komatik runners, and overhauls all equipment to be ready for an early morning start. There is so much to do, in fact that it takes two and a half to three hours before the weary traveller can sit down to his evening meal. When he is ready for bed, he spreads his deerskin rug on top of the spruce boughs, stokes up the stove, unrolls his sleeping bag, and climbs inside.

Placing the first block of a snowhouse while crossing Franklin Bay east of Maitland Point in late April. The basket sled is the Western Arctic type. Photo R. H. Kilgour.



The ICE CONDITIONS of HUDSON BAY

by A. D. Bajkov *Pictures by the author*

THE ice conditions of Hudson Bay are not well known, and thorough scientific investigations have not as yet been carried out there. However, Hudson Bay is an important sea, and the northern route between Churchill and Europe must be considered as an alternative to the St. Lawrence route. It is curious that for two centuries the former was the direct route to Britain and that now it is almost neglected. Ice conditions in the Bay and Strait have not become more difficult during these centuries. On the contrary, there are many indications in the scientific literature of the Arctic that the climate of the whole region has become much milder in the last hundred years. The mean yearly temperatures of the air and water show a persistent and considerable increase in many Arctic stations.

During the present crisis, when the existence of European civilization and the democracies depends on the amount of supplies and the number of aeroplanes shipped to England by water, the route from North America via Hudson Bay should be considered as a second string to the Empire's bow.

So many contradictory opinions have been expressed regarding the Hudson Bay route and at the same time so little is really known about it. The tremendous advantages for safe navigation during the war are:

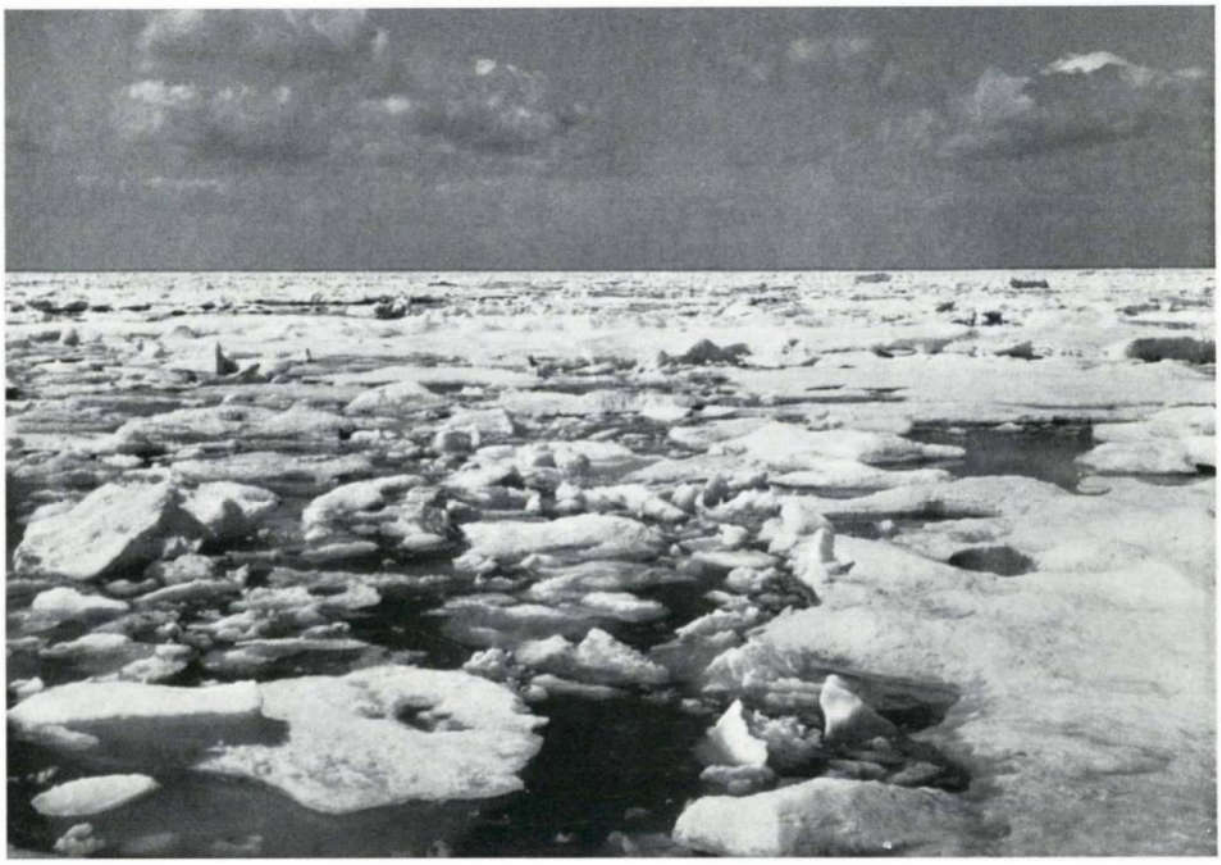
(1) The presence of drift ice which makes submarine activity difficult if not impossible.

(2) Presence of thick fog which prevents seeing vessel from a distance and at the same time does not prevent seeing ice from a safe distance.

(3) During long and foggy nights infra-red rays could be used for detecting the ice on the ship's course.

It is my own opinion, which may be contradictory to many others, that the period of navigation from Churchill to England could be lengthened probably until after Christmas.

Drift ice in mid-July, three hundred miles north of Churchill.



It is not a simple matter to investigate the ice conditions of Hudson Bay, for this requires not only time, but also the financial resources necessary to support the skilled workers who are acquainted with navigation in the ice, the specialists in Arctic hydrology, with their equipment and specially constructed boats; and finally, the aerial service.

Investigations of the ice conditions cannot be done by aerial survey only. During the cold winter days when the air temperature is extremely low, a very thick fog always forms above the surface of the much warmer water. This fog may reach three hundred feet above the sea level and well protects the water from cooling and disturbance. Strong cold winds usually blow above this fog.

Aerial photographs may show in certain cases clear ice of unknown thickness and dark clouds above the areas not fully covered by the ice. These cloudy areas may be either open water or more or less navigable drift ice, also of unknown thickness. It is impossible to take water temperatures or plankton samples or watch currents from aeroplanes only, and without such information, which is available only by boat, the complete understanding of ice conditions would be difficult. The combined survey by boat and airplane would make it possible even to forecast ice conditions for a given area, which, in the majority of cases, are as changeable as weather itself. The correct forecast could be done easily if meteorological, hydrological and biological conditions are taken into consideration.

Morever the inner structure of the ice itself depends on its temperature, salinity and the conditions under which it was formed. It is necessary to know all these data before the decision is made on what kind of vessel, either ice-cutter or ice-breaker, or what sort of explosives for blasting the ice would give best results under the given circumstances. A new branch of science, cryology, has been established during recent years, and the study of it will give the right ideas of the methods of modern ice navigation.

Arctic exploration is a science in itself, and during the last decade a tremendous amount of work along this line has been done by the Russians. Hundreds of millions of dollars have been spent by them, investigating conditions in their sector of the Arctic, and numerous excellent reports with English summaries have been published by the Arctic institute in which new methods of Arctic navigation are described. The much shorter northern summer route from the Atlantic to the Pacific along the Arctic-Siberian coast, which only a few years ago was considered to be utterly impossible, has now become more dependable and safer than the old route through the Indian Ocean, which was used with such disastrous results during the Russo-Japanese war.

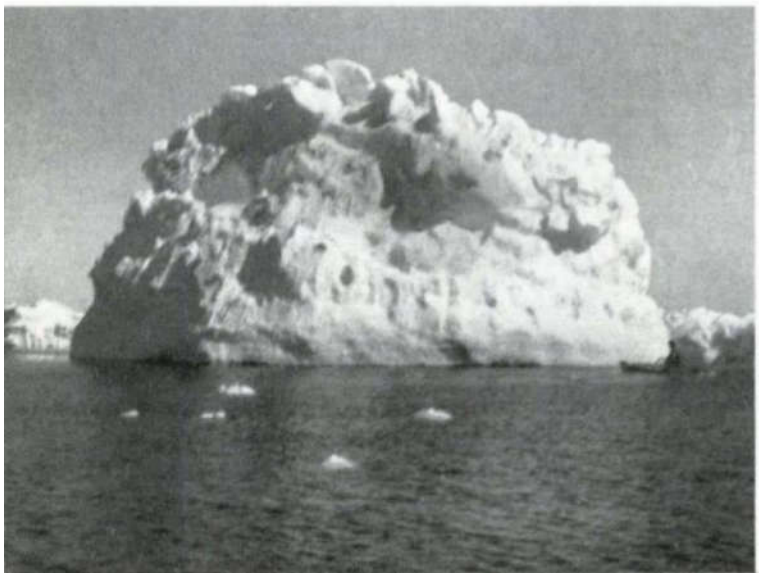
Many people think that Hudson Bay and Strait are solidly frozen over during the winter months. This is not true, however, for the main body of water in this vast inland Canadian sea is constantly open. In an article of limited scope it is impossible to submit detailed ice charts of Hudson Bay during different seasons, but the following points can be emphasized.

In the worst winters, the large ice fields are formed south of Churchill, where they probably extend some fifty miles to the northeast of York Factory. James Bay, due to its shallowness and low salinity, is usually completely frozen over during the second part of each winter. North of Churchill along the western coast of the Bay, the ice occurs seawards for only a few miles from the shore. Shallow bays (especially Button's Bay), where, due to the influence of rivers, the salinity of surface water is lower, are covered by ice during the latter part of the winter. There is usually a certain amount of floating ice in the Bay during the winter, but this represents only drift ice which is moved by tidal currents and winds and offers no obstacle to navigation during the first part of the winter at least. There is a strong anti-clockwise circulatory current along the coasts of the Bay which moves the accumulation of floes out into the Strait.

During the cold and stormy weather, the wave splashings freeze onto the air-exposed surfaces of the ice to such an extent that it attains a thickness of thirty or forty feet. However, the water temperature in the Bay is constantly above the freezing point of its salinity, and as soon as air temperature rises in the spring, the ice melts and disintegrates quickly. This is the local ice which is only one winter old.

During the spring (from April to May) along the western coast of Hudson Bay, very big pieces of heavy ice, the thickness of which may reach a hundred or more feet, can generally be observed. These picturesque pieces, which closely resemble real icebergs, are usually grounded during the low tide and float at high tide. These latter are often confused with real icebergs, though actually they have an entirely different origin. For this is old ice of marine origin, brought by the same circulatory current from Foxe Basin or even possibly from the distant Arctic Archipelago. This ice can be easily distinguished from local Hudson Bay ice by its dirty colour, attributable to sand, mud, or even stones which have become frozen to the bottom part of

Left: Pseudo-iceberg from Foxe Basin near Churchill in mid-April. Note the man in the boat. Right: The same "berg" at the end of May.





these pieces when they were grounded. The shape of these pseudo-icebergs is very irregular and they are very often upside down. It is dangerous to come near such ice at flow tide with small boats. In the spring of 1937, six of us were sailing through heavy pack ice twenty miles east of Nunala, when a storm came up. The wind soon increased to gale force, and when it was at its height, our engine coughed and died. We were close to one of these "icebergs" at the time, so we anchored our forty-foot craft in the lee of it. Suddenly, without warning, this huge mass of ice turned completely over, demolishing our tiller, knocking a four-foot hole through the bottom of the boat, and nearly killing a member of the crew. It was only by a miracle that we were not all drowned.

These pseudo-icebergs melt very quickly indeed, especially when they are aground and exposed to warm wind or rain. The process of disintegration of this kind of ice takes only a few days, and the pack ice also disappears quickly. To illustrate: The Government patrol boat S.S. *Ocean Eagle* arrived at Churchill at 10 o'clock one morning at the beginning of July 1938. The captain of this boat told us that he had terrific trouble navigating through heavy pack ice south of Whales Island. The same day we left Churchill on our schooner *Tania* with eight fishermen for a fishing trip to Dawson and Rankin Inlets, with high hopes of finding plenty of ice for packing fish. Not a single piece of ice was seen between Churchill and Dawson Inlet. The surface temperature of the water was + 7° C. at the place where heavy pack ice was an obstacle only two or three days before! Hunting for ice, the *Tania* changed her course northeast toward Southampton Island. During this course, for at least eighty miles of good sailing, no trace of ice was seen from the top of the mast. The water temperature rose to + 8° C., then to + 9° C. The last hope to find the floating ice was abandoned, and the course changed straight west with the hope of finding at least some Foxe Channel ice grounded near the west coast. This hope was also vain. Passing Whales Island from the north, a small white spot was noticed on the northwestern side of the island. It was hard snow. Only six fish boxes of this snow were available and this was carefully collected, covered with sawdust and canvas and used for packing a few boxes of fish.

It seems, in fact that the middle portion of Hudson Bay clears of ice very much more quickly than the southern part.

The life and development of countless free-swimming microscopic organisms, both plants and animals, which are known under the name of "plankton," are directly connected with ice conditions. The plankton is not the same throughout the year, and the slighest changes in the temperature of water and in the light have a tremendous influence on the quantity and quality of the different species of minute life in the sea. The unicellular microscopic algae, which represent the primary food for planktonic crustaceans, multiply rapidly only in the presence of light. Snow and ice cut down sun rays to such a great extent that chlorophyll-bearing algae cannot exist.

The biological winter of any body of water begins immediately after the formation of ice on the surface. During this period the dominant species are minute animals (zooplankton), usually at the stage when their eggs are not yet developed. The minute plants, or phytoplankton, are practically absent under the heavy ice.



Drift ice between Churchill and Nunala, second part of winter.

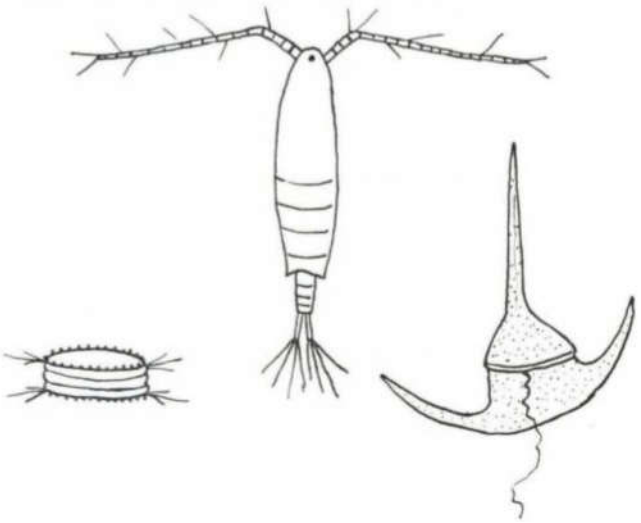
As soon as the ice breaks up, or is moved by winds or currents, rich miniature flora begin to develop, and at the same time many species of microscopic crustaceans form their egg-sacs. This period is the biological spring. Under the floating ice, which is not heavy enough to stop navigation, the phytoplankton compose approximately eighty percent of the total plankton, and many larvae and young stages of different crustaceans can be observed in it.

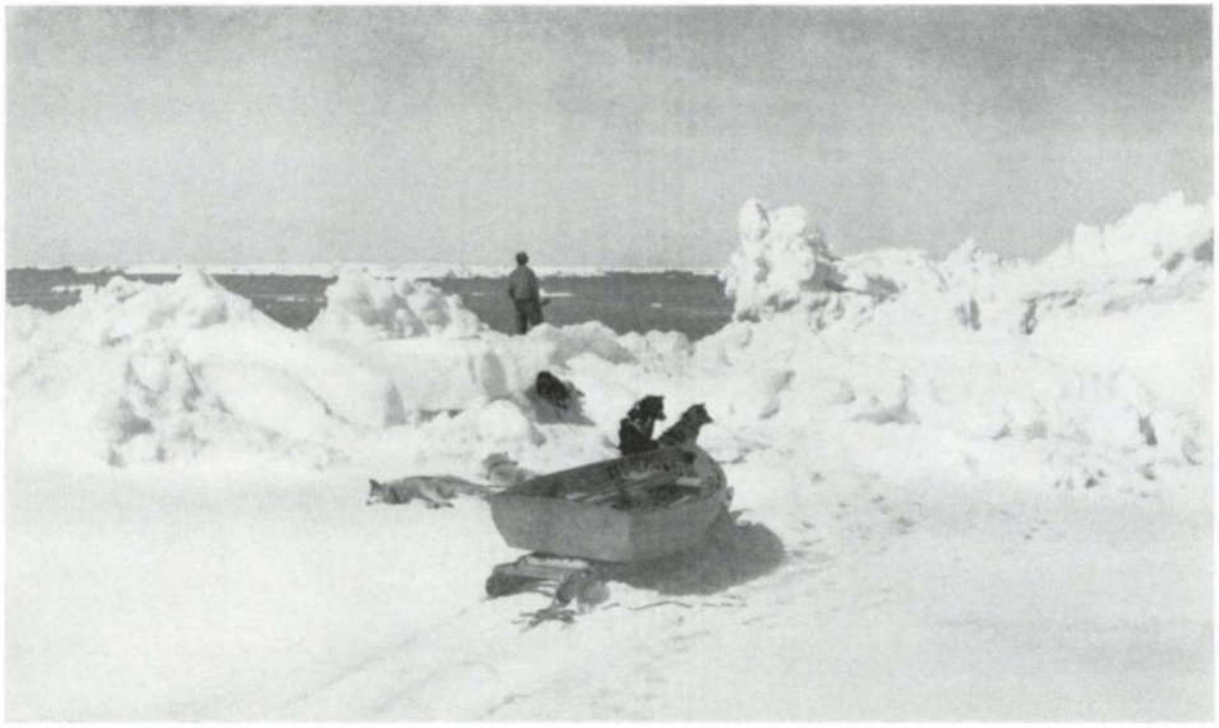
When the biological summer comes, and the sea is free of ice, the ratio between the zoo- and phytoplankton is about fifty-fifty. During this time, also, the immature stages of certain bottom organisms rise to the surface.

Shortly before the formation of the ice, i.e., during the biological autumn, zooplankton dominate and compose about eighty percent of the total volume of plankton. During this time the larvae of the bottom organisms completely disappear.

The study of marine plankton is a task of a life-time, for there are many thousands of different species. But, nevertheless, it is possible, even for the man who does not know much about hydrobiology, to make quantitative and colorimetric analyses of marine plankton, which would give a good practical basis for judgment of ice conditions. The abundance and colour of different species are most significant, and this method has been successfully applied by the navigators in the Russian Arctic. Any more or less intelligent sailor can strain a known volume of sea water from the surface during daytime through a plankton net. The total volume of plankton caught can be easily measured and the colour determined. The scope of the present article does not allow me to go into any technical details, but I should like to submit the following simplified table.

Typical planktonic crustacean (centre) magnified 30 times, and algae magnified 200.





Shallow Button Bay, just north of Churchill, ten miles off shore, end of February.

Biological Seasons	Average Volume of Plankton in one cubic meter of sea water	Colour	Composition of Plankton	Ice Conditions
Biological winter	Less than 0.050 cm³	White	Crustaceans dominant, (mostly copepods). Phytoplankton practically absent.	Large solid ice fields cover the sea. Navigation impossible.
Biological Spring	More than 2 cm³	Greenish-brown	Phytoplankton dominant. Eggs and young stages of copepods.	Floating ice. Navigation is possible if conditions are known.
Biological Summer	1 cm³	Yellowish-pink	Ratio between zoo— and phytoplankton 50.50. More developed stages of copepods.	Sea free of ice.
Biological Autumn	0.1 cm³	Yellow	Much less phytoplankton. Larvae of bottom organisms absent.	Sea free of ice.

In the vicinity of Churchill during the second part of winter, the samples taken in the open water or under the ice near Churchill harbour show the presence of phytoplankton in quantity sufficient to indicate that a large body of water northeast of Churchill is free from ice.

The fact that Hudson Bay never freezes can be proved by the abundance of white whales, which cannot live under the ice.

Eider ducks and other waterfowl stay in Hudson Bay throughout the cold season. These birds can be seen in great numbers near Churchill and further north, especially during the second part of the winter.

The ice conditions of Hudson Strait are far more complicated than in the Bay proper. We must remember that, besides strong regular tidal currents which move the ice in east and west directions, there are two permanent currents along both coasts of the strait.

First, the Atlantic inflow, which becomes weaker in the western half of the strait and tends to keep to the north side. This current carries a considerable amount of drift ice and also true icebergs of Greenland origin which may occasionally drift westward as far as the northern portion of the Bay. There are indications in literature, that the icebergs can reach as far as James Bay. Probably extremely high pieces of very old ice from Foxe Basin or even from the Arctic Archipelago were mistaken for icebergs.

Secondly, along the southern coast of the strait there is a strong outward movement of Hudson Bay waters, which carries drift ice which has not had time to melt or disintegrate. This outward current is joined by the eastern (main) branch of the Foxe Basin current, which carries old ice from the Arctic. In addition to these there is also a certain amount of ice of local Hudson Strait origin.

No doubt this mixture of ice in the strait is heaviest during the spring and the first part of the summer. At this time the strait most certainly cannot be navigated by ordinary steamers. Probably only specially constructed ice-breakers could pass the strait during April, May and June. However, these unfavourable conditions invariably change for the better during the month of July and the strait is navigable from early August. September and October are safe months. New ice forms in November, but the conditions during the first part of the winter are not clearly known. Capt. John Spicer (p. 61, Report of the Expedition to Hudson Bay and Cumberland Gulf on the Steamship *Diana* under the command of William Wakeham; Ottawa, 1896) states that "the Strait never freezes solid in winter, the ice is always moving."

Opinions as to navigability of these waters are almost as numerous as the men expressing themselves on the subject. The following are selected opinions of various people, mostly captains of ships, who have

seen conditions with their own eyes, and therefore have been able to speak from personal observation:

1. "The Bay and Strait could be navigated between July 15 and October 15." Capt. Falconer (1768-69); Capt. Kennedy (1838-46); Capt. T. Mackenzie, and many others.

2. "The Bay and Strait could be navigated from July to November." Capt. Silsby (1884, navigated seven years); Capt. Adams (same experience); Capt. Hawes (fourteen trips); and Capt. Fisher (veteran whaler, who made many trips through the Strait in the middle of last century); Capt. H. E. Webb (1912); Capt. Gordon (1884-86); Capt. Wakeham (1897); J. W. Tyrrell (1908), and many others.

3. "There is no extraordinary danger or difficulty in navigation, even as early as April." Capt. Colin Sinclair (navigated for six years the waters of Hudson's Bay and Strait in the first half of last century); Bishop Lofthouse (twenty years' experience); G. Halcrow (H. B. Co. factor, who passed through the Strait several times); and others.

4. "The Bay and Strait are open to navigation the year round." Capt. Bernier (well known arctic explorer and navigator); Dr. R. Bell, F.R.G.S., (1912); Capt. J. Hackland (H.B.Co. employee, sixteen years' navigation); Walter Dixon (H.B.Co. employee, twenty years' experience), and others.

Capt. G. E. Mack (p. 16, Report of the Hudson Strait Expedition 1927-28; N. B. McLean, officer in charge; Ottawa, 1929) states that in his opinion there is an open channel between Digges Island and Nottingham Island for a considerable period.

Captain Thomas Smellie, commander of the Company's famous icebreaker *Nascopie*, who has sailed the waters of the Bay and Strait for many years, is also of the opinion that they are probably open the whole year. But he points out that any such opinion is purely theoretical, since no records are available to show that they have ever been navigated throughout the winter.

Even if they are open, there still remains the problem of finding a winter harbour suitable for merchant ships. The only port of any commercial importance in the Bay is Churchill. Its harbour is icebound from December to May, and at the end of the winter the thickness of the ice may be in places up to seven feet. This additional thickness is due to tidal water flowing over the ice.

The local ice conditions in Churchill harbour, in fact, decide the closing date for navigation by the Bay



route. Open water during the second part of the winter extends to within three to one half miles from the shore—three small miles that may render the remaining 2,933 to Liverpool impracticable for the winter months.

Two methods of bridging the gap are suggested, but both have their drawbacks: (1) An artificial ice-harbour might be constructed, where loading could be done by tractors, or by the narrow gauge railway now available at Churchill; (2) icebreakers could be continually used to keep open a channel from the docks to open water.

The drawbacks to (1) are that no merchant ship could approach the ice barrier if there was a swell on, without danger of damaging her plating, rudder, and probably her propeller—especially if she were travelling in ballast. (2) gives more promise, but as the entrance to Churchill harbour is exposed to winter gales from the direction of north-northwest through north to east, it is doubtful if any icebreaker could keep the channel open during or after a storm.

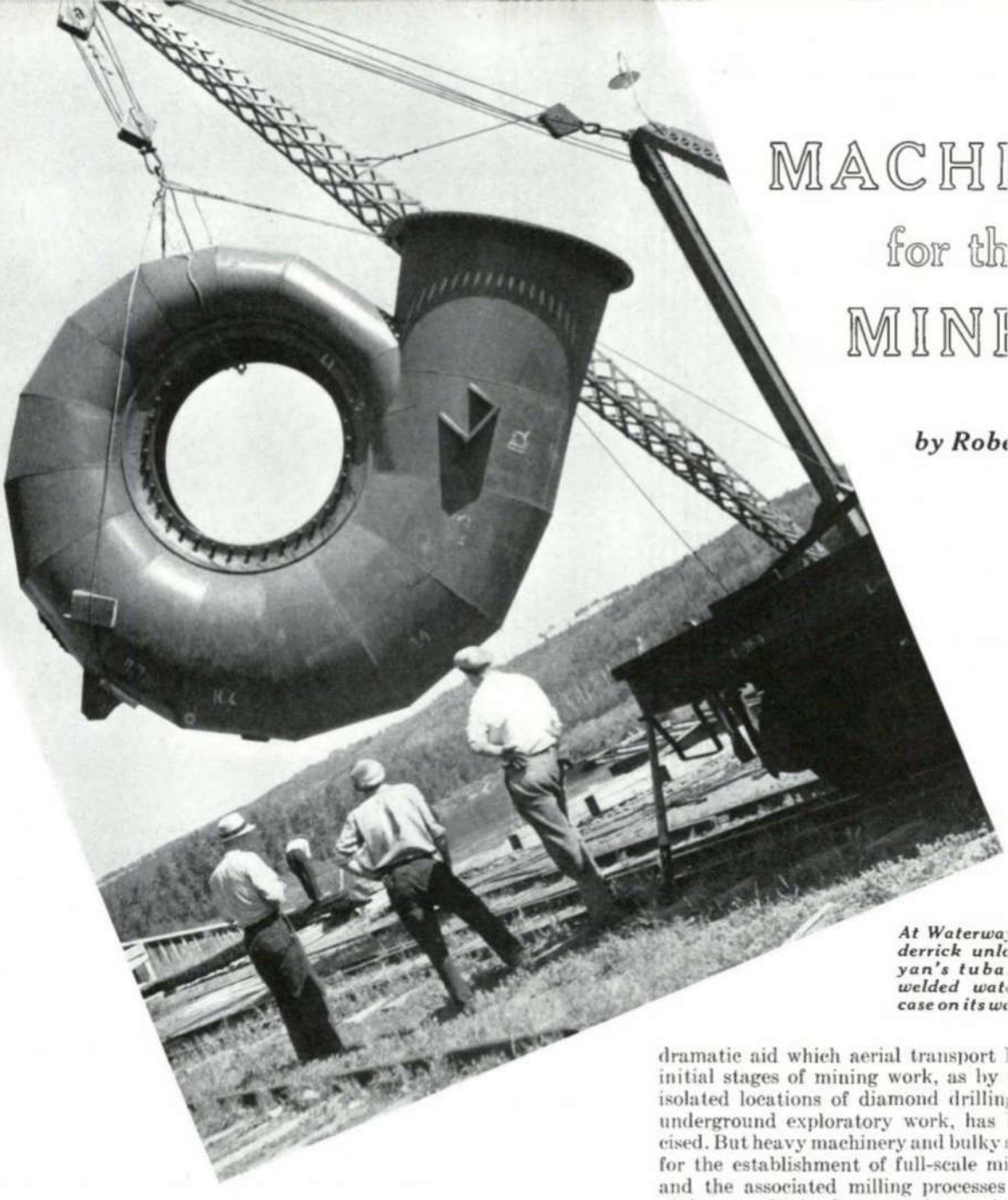
It is along these lines that experiments might first be made. For, even if an all-year open water route were found, there would be no value in it if all the harbours on the Bay were locked by ice.

Open water, one mile from Churchill harbour, in March.



MACHINES for the MINES

by Robert F. Legget



At Waterways, a special steel derrick unloads "Paul Bunyan's tuba," a completely welded water-turbine scroll case on its way to Yellowknife.

MANY people know that water transportation has always been an important part of the activities of the Hudson's Bay Company; but few, probably, realize that to-day the Company, in the ordinary course of its operations in Canada, includes the handling of heavy machinery. Pictures of the S.S. *Nascopie*, the S.S. *Distributor* and other famous vessels of the H B C service, loaded with their usual package freight, have become familiar to those interested in Company affairs, but the accompanying photographs strike a different note. They show some of the heavy freight which has had to be handled by the Mackenzie River Transport during the recent operating season—freight which is typical of that which the Transport has been handling in increasing quantities during the last few years.

The gradual opening up of parts of the Mackenzie River basin, as mining operations have become well established, is a tale that need not now be retold. The dramatic aid which aerial transport has given to the initial stages of mining work, as by the transport to isolated locations of diamond drilling equipment for underground exploratory work, has been well publicised. But heavy machinery and bulky supplies essential for the establishment of full-scale mining operations, and the associated milling processes for the refining of the ore obtained, cannot be carried by air. Water transportation has here played its part, and is to-day providing a vital link between these newly developing mining areas and the outer world. Practically every piece of machinery and equipment now forming part of the four successfully operating gold mines in the Mackenzie basin, as well as all that for other ventures now closed down or not yet fully developed, has been taken in over the great waterway provided by the Athabasca River and its sister waters, after transfer from railroad cars at Waterways, Alberta. Mackenzie River Transport has been responsible for carrying the greater part of all this special freight.

Hard rock mining, such as is practised in the pre-Cambrian rocks of the Laurentian Shield—rocks which are encountered in the watershed of the Mackenzie River—calls not only for the usual excavating equipment, such as drills, dynamite, and ore cars etc., but also for machinery with which the excavated ore can be hauled to the surface from the underground workings in which it is obtained. Massive head frames and

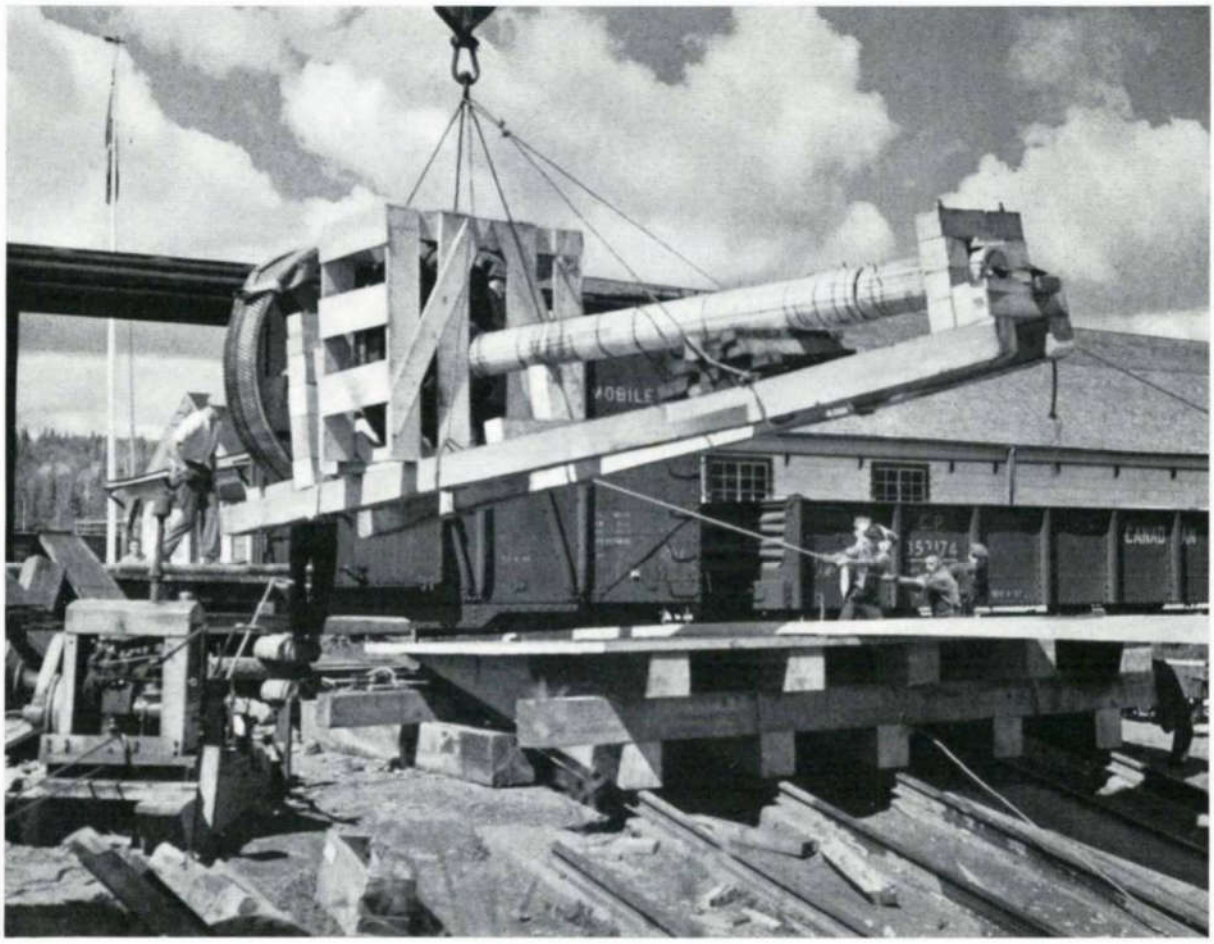
large hoisting engines are therefore necessary, and they have been included in these strange cargoes of recent years on Mackenzie waters. One large double-drum electrically operated hoist was taken in to Yellowknife for use at the new Ptarmigan Mine during the past summer. Then, before ore can be processed it must be crushed, and the crushing of igneous rocks in the quantities used in mining operations calls for massive machinery of formidable proportions. Rock crushers, too, have been carried "down North" by water, one large cone crusher having been taken in to Goldfields for use at the Box Mine of the Consolidated Mining and Smelting Company in July of last summer. One piece of this crusher weighed twelve and a half tons.

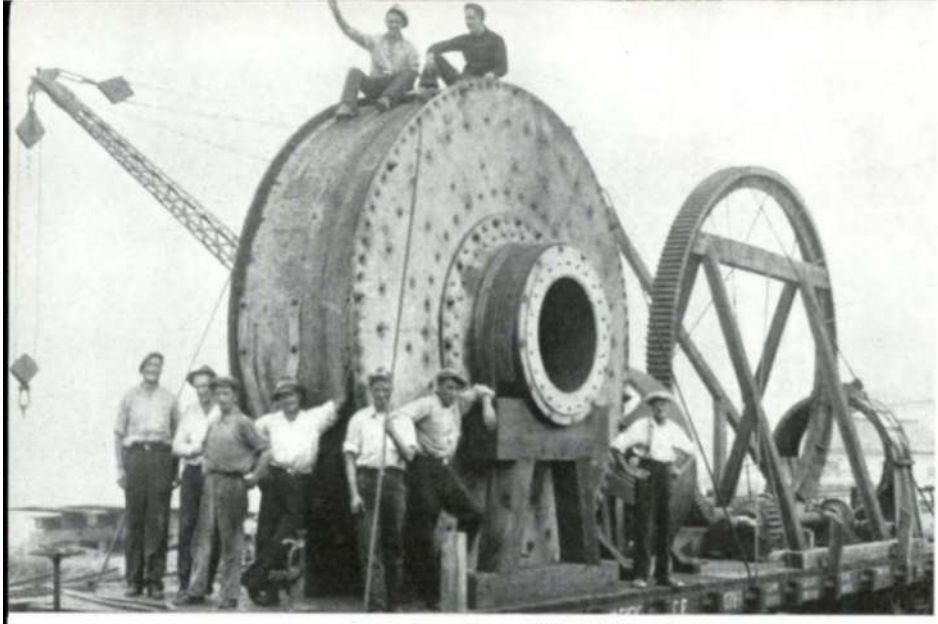
Power is necessary to operate these mines and mills. This was first obtained from diesel engine power plants, but it is now being generated in two small water-power plants for mines in the Goldfields and Yellowknife areas. Construction equipment for the building of these plants has had to be transported, as well as the materials and equipment for the permanent parts of each plant. Cement, steel, woodstave pipes and tanks, cranes, electrical transformers and machinery, and even a completely welded scroll case for a water turbine have formed part of these special cargoes to the North. The latter caused a great deal of amusement, its curious shape providing great scope for natural wits who vied with one another in naming it appropriately. The piece weighed only seven and a half tons, but, as may be seen from the accompanying photograph, its structure made it awkward to handle. It should perhaps be explained that the scroll case of a water turbine is the specially shaped passageway through which water is led to the rotating blades of the turbine, which is located centrally within the open centre of the case.

On arrival at Waterways, the cars containing this strange assortment of freight were switched by the Northern Alberta Railways onto a spur line running between the main warehouse of the Mackenzie River Transport and the bank of the Clearwater River. The heavy pieces were unloaded either by means of a powerful steel derrick or by the ancient but still efficient method of man-power aided by levers and rollers. The pieces were moved directly onto a large wooden platform mounted on inclined skids which slide on a set of rails leading down the steep bank to the water's edge. When loaded, the platform was lowered down and its load transferred to the waiting M.R.T. barge at the foot of the incline. When trimmed and secured, the barge started on its journey northwards, down the Athabasca River, in front of one of the powerful diesel tug boats of the Transport service or the S.S. *Northland Echo*, the old sternwheeler steamboat which is still giving good service.

All freight for the Northwest Territories has to be portaged, as is well known, around the rapids at Fort Smith. The efficient service provided between Fitzgerald and Fort Smith by the Ryan Brothers' organization is seen at its best when heavy equipment arrives

Main drive shaft for a mine hoist, weighing seven and one-half tons, is swung on to the M.R.T. loading platform at Waterways.



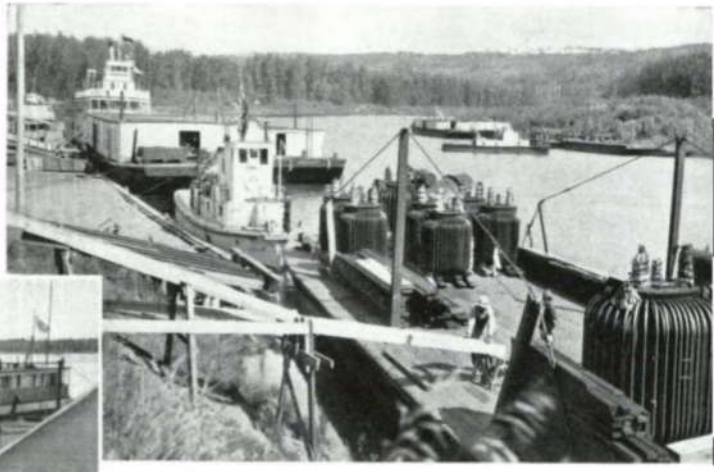


Part of a roller mill for Yellowknife.

Waterways waterfront provides a contrast that would puzzle many an old servant of the Company. Strange business this, it might be thought, in which to find a fur-trading company involved. But this unusual transportation work is an important part of the service to the North—the "new North" as it may be heard called to-day—that has for so long been characteristic of the H B C. The barges and power boats of the Mackenzie River Transport can handle practically any piece of freight that the railroad can deliver to Waterways. In the Transport organization are men long experienced in handling heavy freight and well versed in the art of construction so that the significance of the freight they are carrying and the importance of its safe and prompt delivery is second nature to them. Strange as this freight may seem, therefore, in association with the well known H B C flag, its transport clearly illustrates the adaptability of this old Company to the needs of modern times.

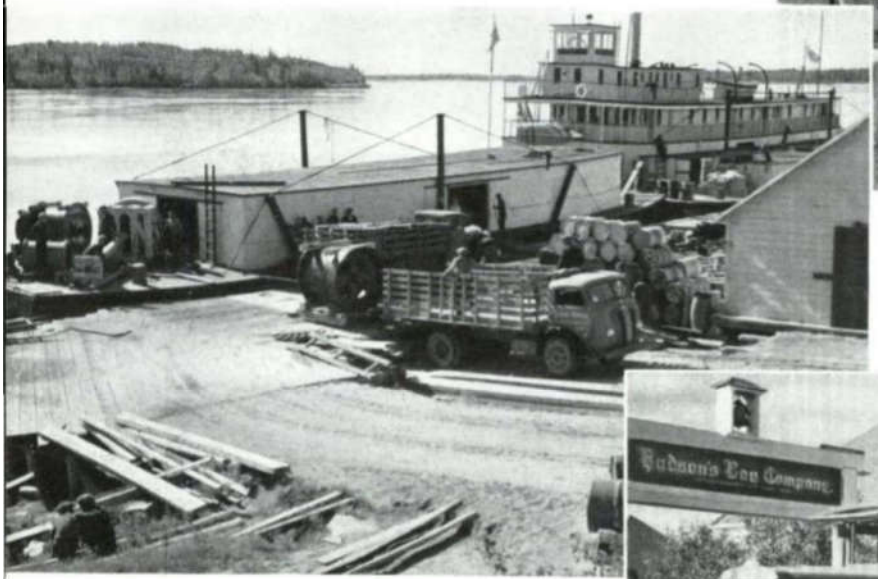
from the south. Taken off the barges at Fitzgerald dock on rollers, the heavy pieces are readily hauled onto trucks or tractors by the trucks' own hoists, their traverse of the famous portage road being no more than a routine job to the truck drivers. At Fort Smith, rollers, levers, man-power and the occasional use of a hoist make short work of the transfer back to barges. The journey is then completed in front of another of the power boats of the M.R.T. fleet. Journey's end for these heavy pieces is usually either Goldfields on Lake Athabasca or Yellowknife on Great Slave Lake. At these points unloading is taken care of by the owners; the Transport's job finishing with the safe delivery of the valuable cargoes alongside the special mine wharves.

The sight of shipments of flour and sow-belly almost side by side with huge pieces of machinery on the



Transformers on a barge at Waterways destined for the mines.

Part of the main generator for the new Yellowknife power plant, boxed for transport and weighing ten tons, passes Fort Smith on one of Ryan Brothers' tractors.





A drum for a mine hoist is unloaded from a M.R.T. barge at Fitzgerald to be carried across the portage to Fort Smith. Ryan Brothers, who operate the trucks, have the contract for this part of the Journey. "Northland Echo" in background.



Nathan Pelly and his son with a muskrat they have trapped from the house near by.

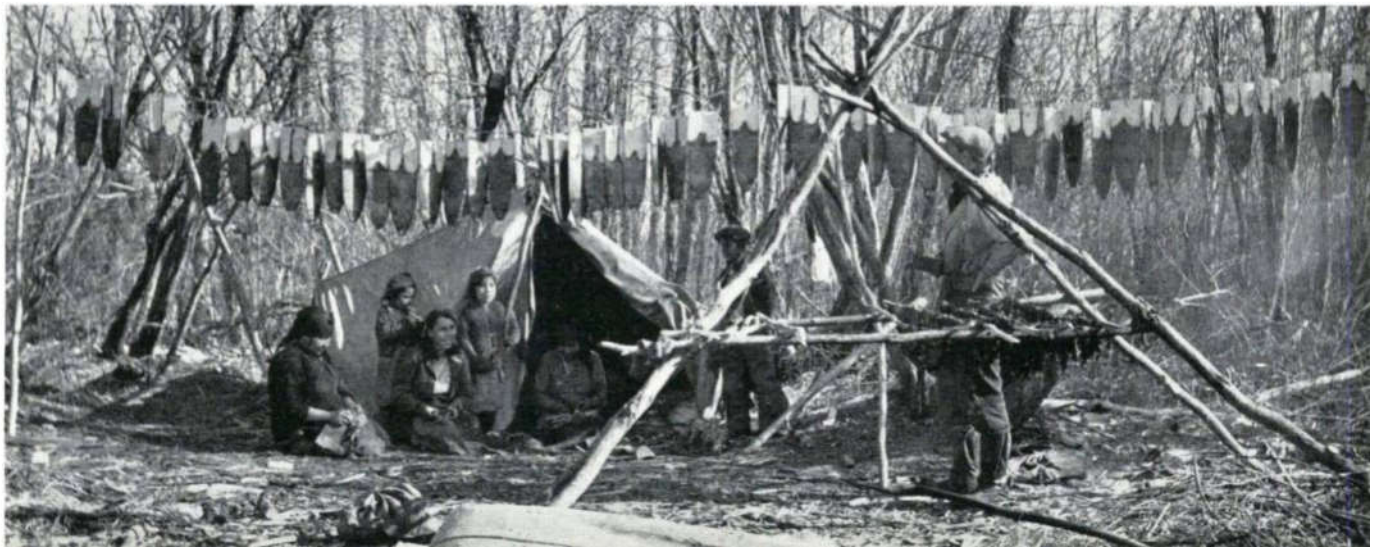
Spring Trapping at Cumberland

by Donald Denmark



Above: Russell Robertson goes the rounds of the camps and collects the catch. Here he puts moccasins on the dogs to protect their feet from the sharp spring ice.

Below: Indian women skin the rats and hang the skins up to dry on the standard stretchers provided by the Company. The meat being smoked over the fire is regarded as a great delicacy by red men and white men alike.





SNOW SHOES

By J. A. Burgesse

Crudely improvised trappers' snowshoes in the Mackenzie River region. On the right is a factory made pair.

An outline of the various types of Eastern Indian snowshoes, and their development with the aid of steel tools.

IN their simplest form snowshoes are mere circular hoops of wood, the enclosed space being filled with a web of rawhide thongs, which are attached to the wearer's feet by a harness, and which serve to prevent him from sinking too deeply into the soft snow.

The Canadian snowshoe is apparently a native product, for the first white explorers found it widely distributed across the country. But it is by no means an article unique to North America. Snowshoes are widely used in Russia and Siberia, and a form of snowshoe is worn by horses in the lumber-camps of Norway and Sweden. Mud pattens—flat wooden boards, similar to snowshoes—are used quite regularly on the mud flats of certain parts of Europe.

So far as can be gathered from the writings of the early explorers, and from descriptions furnished by ancient Indians who had learned from their forebears, the original snowshoe was a rude, uncouth article and hardly comparable to its modern counterpart, which is often a thing of beauty in design and construction. Before the discovery of America by the Europeans, the American Indian—at least in the Eastern Woodlands—had no really efficient tools with which to work and, with his stone axe or scraper and a few bone drills, it was quite impossible for him to turn out anything that resembled the modern snowshoe.

It seems very probable that the original snowshoe was of the circular or "bearpaw" form. The material for the frames was almost certainly nothing but a mere branch of a tree, from which the bark was roughly scraped, bent into an eliptical or circular hoop, the ends being bound together with bark twine or babiche. The mortice joint was quite unknown and the bracing members, or cross bars, were bound to the frames by means of a T-joint. This joint was made by gouging out wood from each end of the cross bars to a depth of about two inches, thus leaving a couple of wooden tongues at each of the two extremities. These tongues were bent back at each side of the main member so as to stand at right angles to it and the T's so formed served to carry the bindings by which the bars were bound to the main frame of the snowshoe, making, for want of something better, a fairly solid joint. (Figure 1.)

After the Indians obtained steel tools from the fur-traders, there was a marked change in the workmanship of their snowshoes. The curved or crooked knife

(*mocotaugan*, see *The Beaver*, Dec. 1940, p. 39) was especially useful in this regard. To quote O. T. Mason, curator of ethnology in the U.S. National Museum: "An examination of old patterns of snowshoes, in comparison with the latest patterns, reveals an astonishing improvement. The versatile curved knife is just as useful in the making of fine babiche for the webbing as in whittling down the frame. In the old fashioned snowshoes the rawhide footing is nearly a quarter of an inch wide, while in the best and latest the strands are as fine as thread." Figure 2 is a sketch of a modern pair in the bearpaw shape. Nowadays, however, the bearpaw shoe is hardly ever used by hunters. It is usually confined to children who are learning to walk on them. Nevertheless, one sometimes meets an oldster who prefers this type.

Such was the case of the original owner of the pair of snowshoes from which sketch No. 2 was made. He was an old hunter of the Metagami band and his snowshoes are not strictly bearpaw pattern. Rather they are of a bastard design and show Ojibway influence, though the rounded tail follows the bear-paw pattern; but the purpose of the sketch is to illustrate the improvement in workmanship after the Indians obtained steel tools. The cross section of the frames is square and tooled and there is an evenness of design and symmetry of contour not found in the old shoe. The T-joint has been replaced by a neat mortice.

The material usually employed for the fabrication of snowshoe frames is birch, since this wood combines qualities of toughness, lightness and workability and, in addition, it is to be obtained almost anywhere. On occasion, however, other woods are used, and I have seen snowshoe frames made from larch, spruce, ash and other woods. The lacing medium *par excellence* is beaver babiche, cut from a beaver skin after the hide has been stretched, scraped and the hair removed. This babiche does not stretch to any appreciable extent after it has been prepared and, in consequence, a webbing made from it does not sag. However, the high prices brought by beaver as fur during the last few years, and the severe restrictions placed on the killing of beaver, by the various provincial fish and game authorities, has discouraged the natives from using beaver for their snowshoes. When beaver cannot be obtained, a babiche made from caribou hide is used and, in fact, this is the most popular lacing medium throughout the Labrador Peninsula. Where caribou are not abundant, moose babiche is used, but its quality is far below that of caribou, and babiche made from it is somewhat coarse. In some districts neither caribou nor moose are obtainable, so the hunters have to use cow-hide. Cow babiche, however, stretches quite a lot, and snowshoes laced with it "bag" when only slightly damp.

Indian men and women both have their own tasks to perform in the making of the family snowshoes and only in exceptional cases will a man perform a duty which, ordinarily, belongs to a woman. Amongst the Montagnais it is the hunter himself who prepares the frames. He goes off into the woods and selects a suitable birch, fells it and takes from the trunk a length of about six or seven feet—as free from knots as possible. From this he hews a couple of strips sufficiently long and thick to make his frames and, with his crooked knife, whittles them to the required size and shape. He then bends them over his knee while the wood is still green and afterwards fits in the cross bars with mortices. The frames are then hung up to season.



Fig. 1. Original bear-paw type, with T-joints. 27x12½ ins. This pair was improvised out of bent willow and fishnet twine by an Indian caught in an unseasonal snowstorm. From the H B C historical collection.

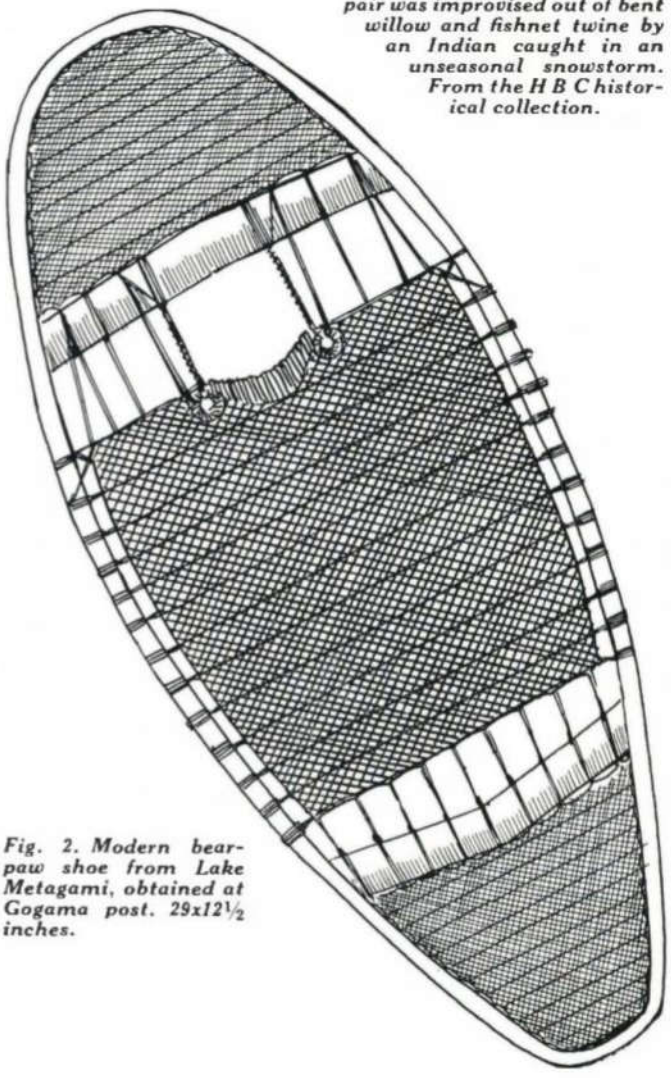


Fig. 2. Modern bear-paw shoe from Lake Metagami, obtained at Gogama post. 29x12½ inches.

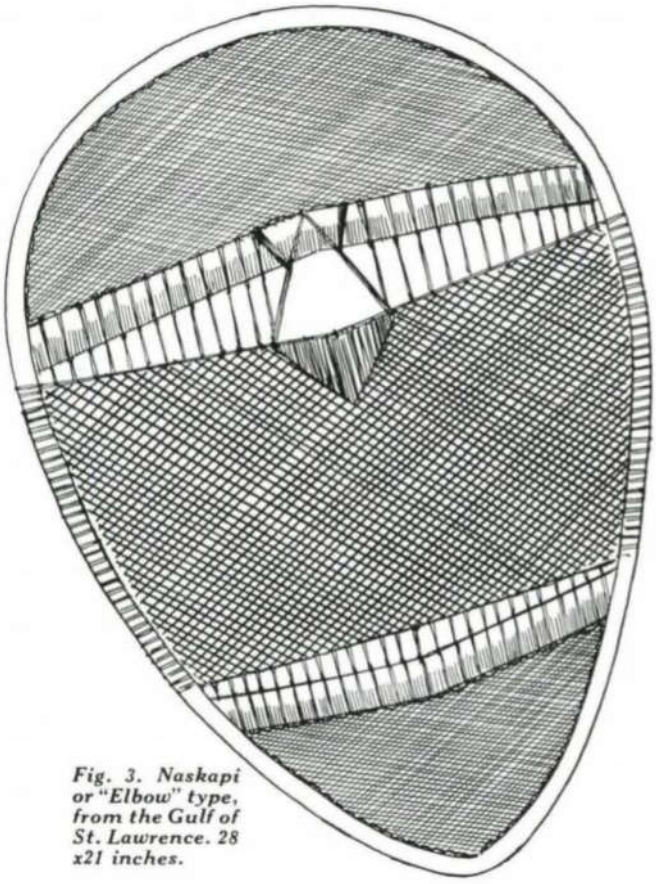


Fig. 3. Naskapi or "Elbow" type, from the Gulf of St. Lawrence. 28 x21 inches.

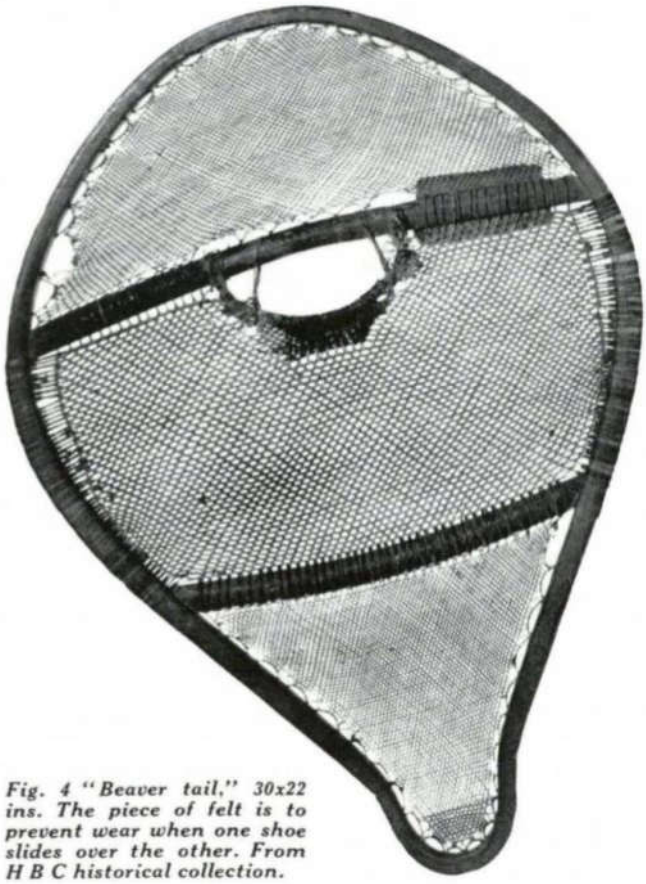


Fig. 4 "Beaver tail," 30x22 ins. The piece of felt is to prevent wear when one shoe slides over the other. From H B C historical collection.

care being taken that they do not warp during the process. The Montagnais hunter does not use steam in shaping his snowshoe frames, nor does he rip them out of a plank with a saw. The reason for this is that he requires an even grain running around the frame, for a cross grain would weaken them and they might break in use. Factory made shoes are ripped from planks and the Indian will have nothing to do with them. He says that factory made shoes have no "life" in them.

The frames having been prepared, they are turned over to the goodwife of the household for webbing. The lacing is done with a spindle shaped bone needle, the babiche passing through a hole in the centre. So quickly do the Indian women work that it is almost impossible to follow the path of the needle as it works up and down, over one strand and under the next, and the space enclosed by the frames is filled with webbing in an incredibly short time. The babiche is laced when wet and is stretched so tightly that, when dry, the webbing is as taut as a drumskin and the lacing as hard as horn. The final work—the lacing and stretching of the "master" strands at the toe, which bear the greatest strain—is usually done by the hunter himself. Harness is made from lamp wick since this does not crack and break when wet and frozen, but sometimes tanned moosehide is used, especially for the toe strap.

The Eastern Woodlands snowshoes, which form the substance of this article, are remarkable for the diversity of their shapes. So varied are these that, with some exceptions due to overlapping, it is quite possible to tell to what band a hunter belongs merely from the shape of his snowshoes.

In general the more easterly tribes have wide, almost circular shoes, while those to the west favour a long, narrow design. The broad shoe is for use in

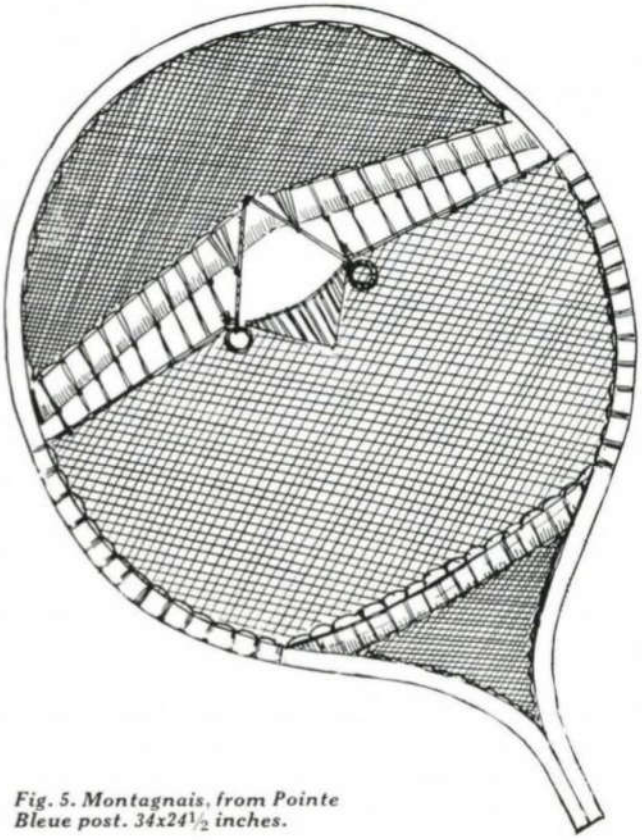


Fig. 5. Montagnais, from Pointe Bleue post. 34x24½ inches.

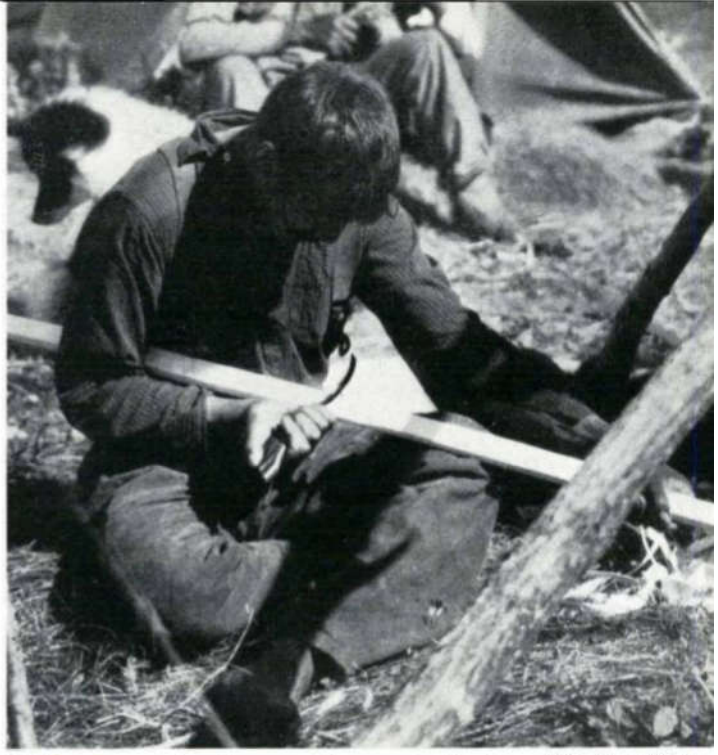
mountainous country. Its long cross bars and flattened ends present plenty of resistance to the line of descent, and it is therefore less liable to slip than the narrow, straight-sided types. The latter, however, have an advantage over the wide shoe because the feet in walking do not have to be as widely separated, and the shoe can be partly trailed, instead of lifted at each step.

The finest workmanship in the Eastern Woodlands area is to be found in the more easterly parts. Here the lacing is fine, and patterns are often seen in the webbing.

As one goes westwards it is noticeable that the lacing becomes heavier and more irregular and patterns disappear entirely. Without a doubt the reason for this is that the eastern snow is lighter, fluffier and deeper than in the west and, in consequence, the hunters in the east have to pay greater attention to their snowshoes.

Let us take a look at some snowshoes from various points across the country. Assuming that the bearpaw was the original pattern, we have a slight departure from it in the "elbow" snowshoe (figure 3) which illustrates a snowshoe obtained from Pointe Bleue post. This however, is not a Montagnais article. It was imported from one of the Gulf posts—either Bersimis or Sept Iles. Its exact point of origin could not be established, but enough information was forthcoming to point to its having originated in a Naskapi district, somewhere to the north of Lake Ashuanipi—possibly Fort McKenzie. It is not a common type of shoe, even amongst the Naskapi—but similar examples have been seen amongst the Moisie Naskapi. As can be seen from the sketch, it is merely a bearpaw snowshoe which has had the tail elongated slightly, giving it an oval rather than an elliptical outline.

The Mistassinni hunters, whose territory lies directly west of the Naskapi, and, indeed, many of the Naskapi, use the "beaver-tail" pattern (figure 4) which would seem to have been a further development of the elbow shoe. In this snowshoe the smaller end of the oval, which always appears at the tail, has been elongated slightly more and constricted, giving the snowshoe a caudal appendage similar to that of the beaver.



Making a snowshoe frame with a crooked knife. Natl. Mus. of Can.

The Montagnais inhabit the region between the Ste. Marguerite River, on the Gulf of the St. Lawrence, and the Lake St. John valley. To the north and northwest of them are the Mistassinni and to the east and northeast are the Naskapi. Yet neither the beaver-tail nor the elbow type of snowshoe is used, to any marked extent, by the Montagnais. Instead they have their own model, (figure 5), in which, though the circular or oval form of the shoes already described is retained, the conventional tail appears. To form this the ends of the frames are brought together, with their inner surfaces in contact, to form a short, solid tail a few inches in length. The Montagnais shoe is the commonest form used throughout the Labrador Peninsula and is usually known simply as the Eastern snowshoe.

The valley of the St. Maurice, west of the Montagnais, is the home of the Têtes de Boule, a very ancient band of Algonkian stock who have only come into regular contact with Europeans since the building of the Grand Trunk Railway. In some respects this contact has not had a very happy result but, to some extent, the Têtes de Boule have retained their ancient culture.

Fig. 6. Tete de Boule, the link between the eastern shoe and the Ojibway.

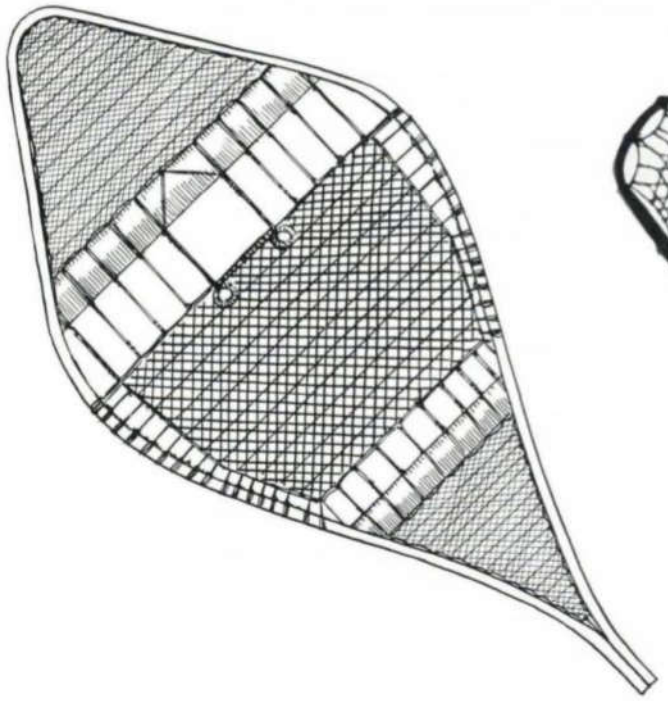
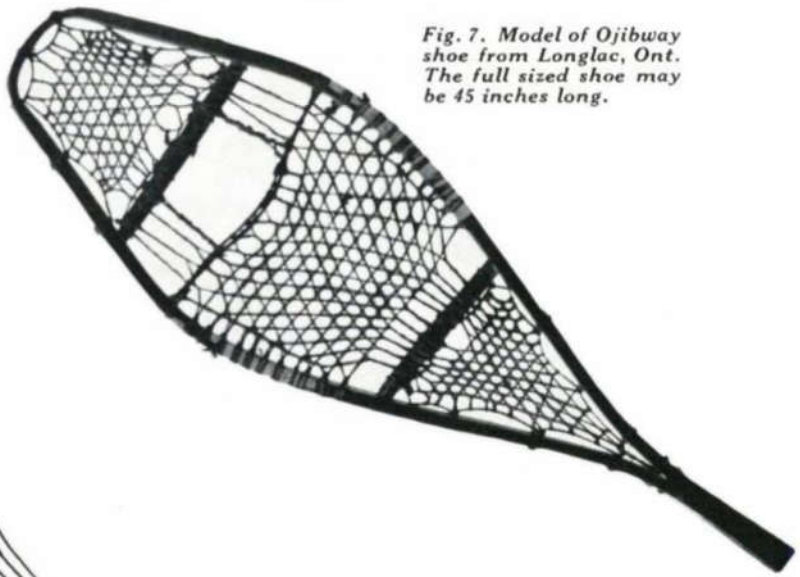


Fig. 7. Model of Ojibway shoe from Longlac, Ont. The full sized shoe may be 45 inches long.



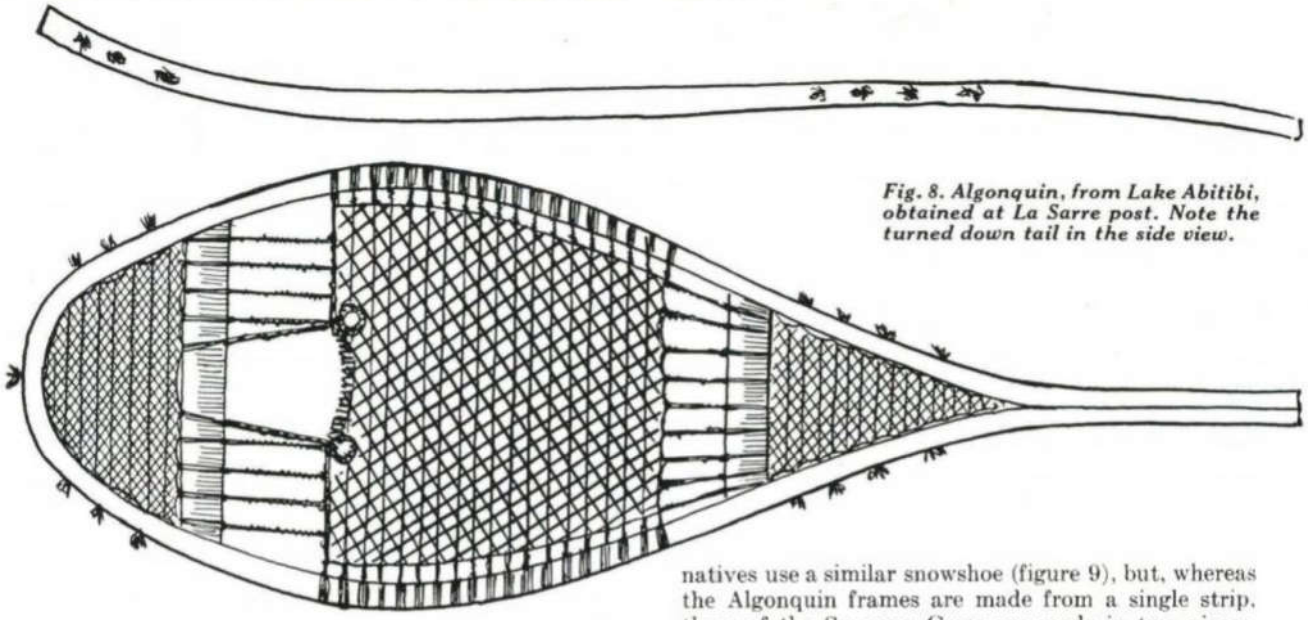


Fig. 8. Algonquin, from Lake Abitibi, obtained at La Sarre post. Note the turned down tail in the side view.

Their snowshoes are remarkable in that the shape shows a rather radical change from those of the Montagnais, Mistassinni and Naskapi. Instead of retaining the circular or oval design the Têtes de Boule have developed an almost diamond shape (figure 6), which gives their snowshoes a rather odd appearance. However, this oddity of shape would seem to point to an evolution from east to west. The Tête de Boule's diamond shoe links the eastern snowshoe to the Ojibway shoe, which is long and narrow (figure 7). The diamond contour is, to some extent, retained by the Ojibway, but it is not so apparent on account of the increase in length. The eastern snowshoes—Naskapi, Mistassinni, Montagnais and Tête de Boule—rarely exceed thirty inches in length, but forty-five inches is about the ordinary length of the Ojibway article.

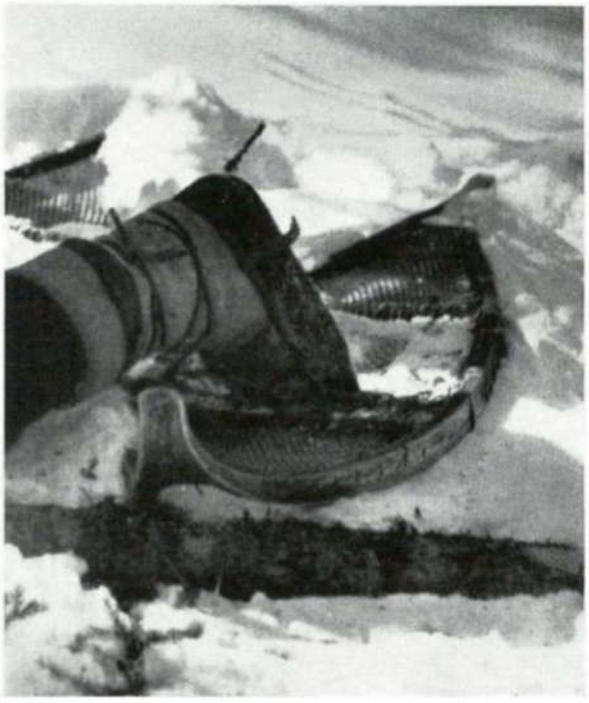
The Ojibway snowshoe is the most familiar type, for this is the usual shape of the factory made shoe. It is not so suitable as the wider, shorter shoes for heavily wooded country where the snow is light and very deep, but its length enables the wearer to run when wearing them, and it is a good shoe for the damper, heavier snow found north of the great lakes, and for the more open forest country. This is the type most generally favoured by whites—at least in Eastern Canada.

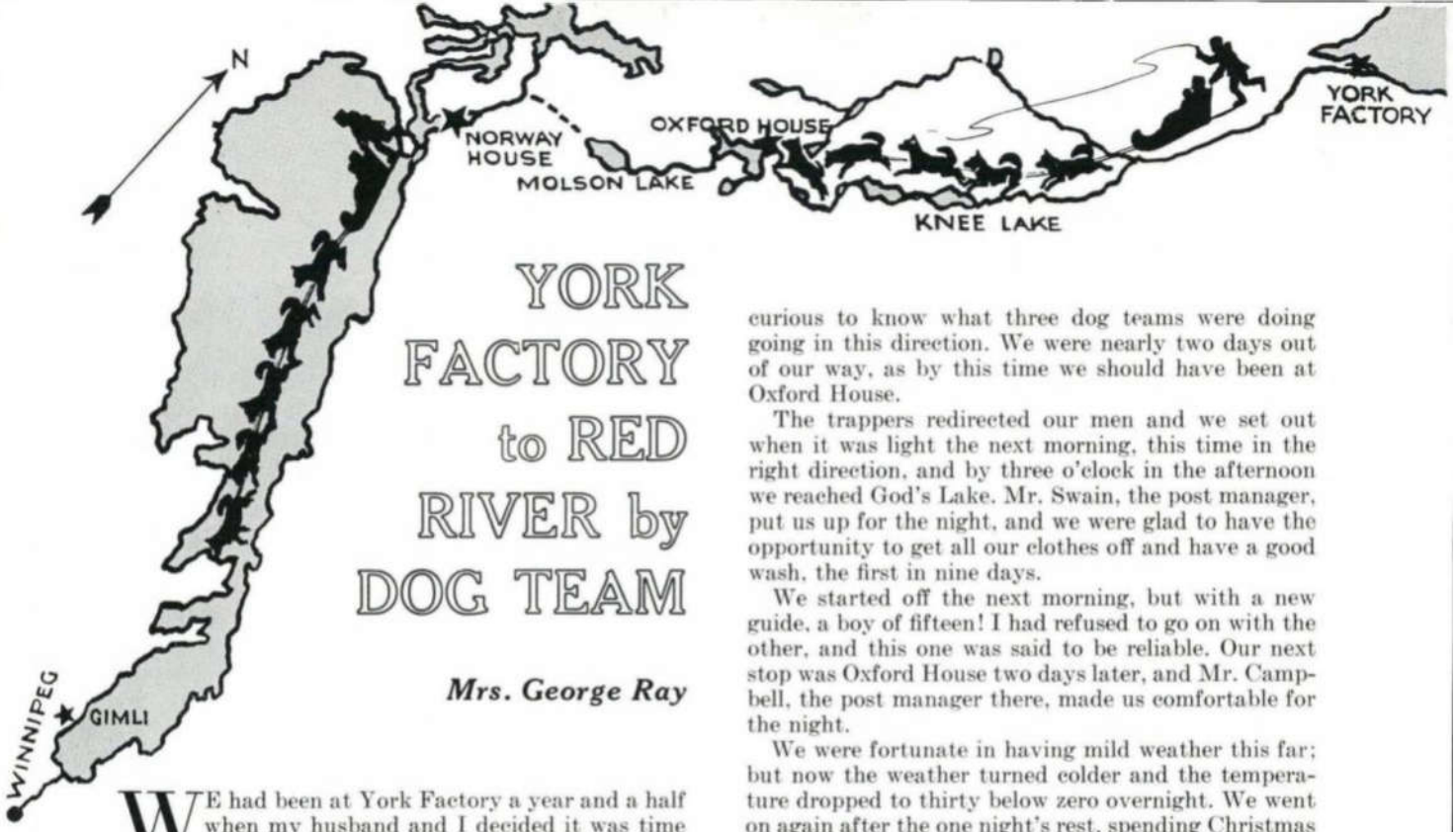
The next step in the development of the snowshoe we owe to the Algonquins, who are neighbours of both the Têtes de Boule and the Ojibway. They inhabit the country immediately south of James Bay and to the east of the inter-provincial boundary. Their snowshoes (figure 8), are very similar to those of the Ojibway. They are usually quite long, though not quite so long as the Ojibway, and have smooth flowing lines which break down the diamond effect seen in both the Tête de Boule and the Ojibway snowshoes. The most striking difference, however, between the Algonquin snowshoe and that of the Ojibway is that the former has a turned up toe. The frames are made from a single strip of wood bent in such a manner as to produce a distinct *retrousse* effect, and there is a slight depression of the tail so that, viewed from the side, the snowshoe frame has somewhat the appearance of a flattened "S." This turned up toe is a big improvement for, unless the wearer is really expert, the toes of most eastern shoes have a nasty habit of digging themselves into the snow at unexpected moments and with unfortunate results. The Algonquin shoe, however, rides over all small snags.

The *retrousse* toe has been carried a step further by the Swampy Crees in the James Bay region. These natives use a similar snowshoe (figure 9), but, whereas the Algonquin frames are made from a single strip, those of the Swampy Crees are made in two pieces, joined at toe and heel. This method permits of a really good turn up of the toe—often as much as five or six inches. This Cree snowshoe has very much the general form of a ski. The late Arthur Heming made the Cree snowshoe a familar sight to the general public, for almost all the subjects of his pictures wear it.

From the foregoing description of the various types of snowshoes, it will be seen that it is quite feasible to suppose that there has been a constant improvement and development of the snowshoe, and it would be quite within reason to imagine that a further step might have been towards the ski. Wooden snowshoes exist, and it would have been a comparatively simple matter to turn these up at the toe—always supposing that the Indians who use the wooden shoes received the idea of a *retrousse* toe from the Crees—and the result would have been, to all practical purposes, a form of ski.

Fig. 9. Cree shoe, James Bay region, showing the ski-like toe. The wearer is kneeling, with his foot through the foot-hole.





YORK FACTORY to RED RIVER by DOG TEAM

Mrs. George Ray

WE had been at York Factory a year and a half when my husband and I decided it was time George, who was nearly seven, was getting some schooling. There was no teacher at the fort in those days; it was 1907.

On the morning of December 10 we started off up the Hayes river. There were two teams carrying our food and extra baggage, and we had two carrioles. I had my little daughter Kasba, who was only two and a half, in my carriole: George and Marjory (aged four and a half) were comfortably fixed with a warm eiderdown and fur rug in the other carriole. The children all wore deerskin coats and duffle-lined skin mitts, and had fur hats that came down over their ears. The girls also wore duffle dresses over their plaid dresses.

My husband was with us for seven days, then returned to York Factory with a driver and one of the teams. The children and I travelled on with the Indian guide and four drivers. I had an Indian girl, Rebecca, with me to help with the children. We didn't travel very fast. As the snow was deep through the bush and we were following a blazed trail, the guide and men had their snowshoes on the greater part of the time. Rebecca slept in my tent and was very good with the children, helping them dress each morning, as we had to be up early. We only took off our outer clothes and shoes. There was a small stove in the tent.

The day after my husband left us I noticed the men stopping every now and then to climb trees and scan the surrounding country, talking among themselves. I didn't say anything but I began to wonder if something had gone wrong.

In the evening Rebecca came to me and said the men would be glad if I could spare them my biscuit crumbs. "We are lost," she said calmly. While I was getting the crumbs from the "grub box," she vouchsafed the information that the dogs had been given their last feed. This looked serious.

Presently I heard strange voices and sent Rebecca to the men's tent to see who it was. She came back to say that two God's Lake Indians who were out on their traplines had followed us and wanted to know what we were doing on Swan Lake. We should have been on Knee Lake. These men had followed us two miles, curious to know what three dog teams were doing going in this direction. We were nearly two days out of our way, as by this time we should have been at Oxford House.

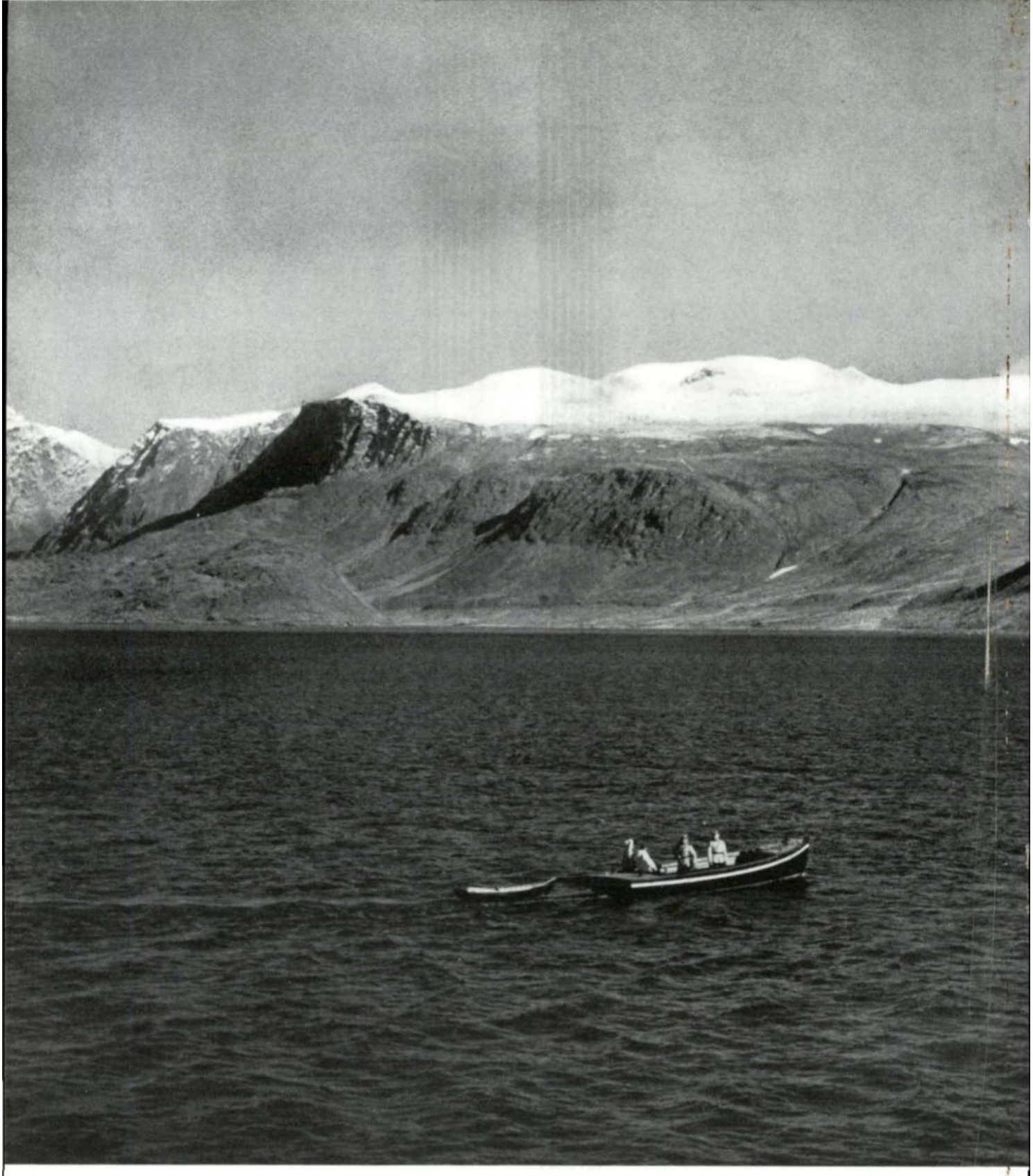
The trappers redirected our men and we set out when it was light the next morning, this time in the right direction, and by three o'clock in the afternoon we reached God's Lake. Mr. Swain, the post manager, put us up for the night, and we were glad to have the opportunity to get all our clothes off and have a good wash, the first in nine days.

We started off the next morning, but with a new guide, a boy of fifteen! I had refused to go on with the other, and this one was said to be reliable. Our next stop was Oxford House two days later, and Mr. Campbell, the post manager there, made us comfortable for the night.

We were fortunate in having mild weather this far; but now the weather turned colder and the temperature dropped to thirty below zero overnight. We went on again after the one night's rest, spending Christmas Day in the bush. The temperature continued to drop, and finally I was up all night attending the tiny stove and keeping the children covered. At one time the stove pipe became so hot that the tent began to smoulder around the hole and I had to put it out. I was so cold I thought I should never be warm again. The next day we came upon a log hut, where two trappers insisted on us stopping. I was very thankful for their hospitality, for I felt I could hardly go on. When we did start I had at last got warm again by sitting over the stove for hours. That night we were again fortunate, as we came on an Indian's hut with a roaring fire to warm us.

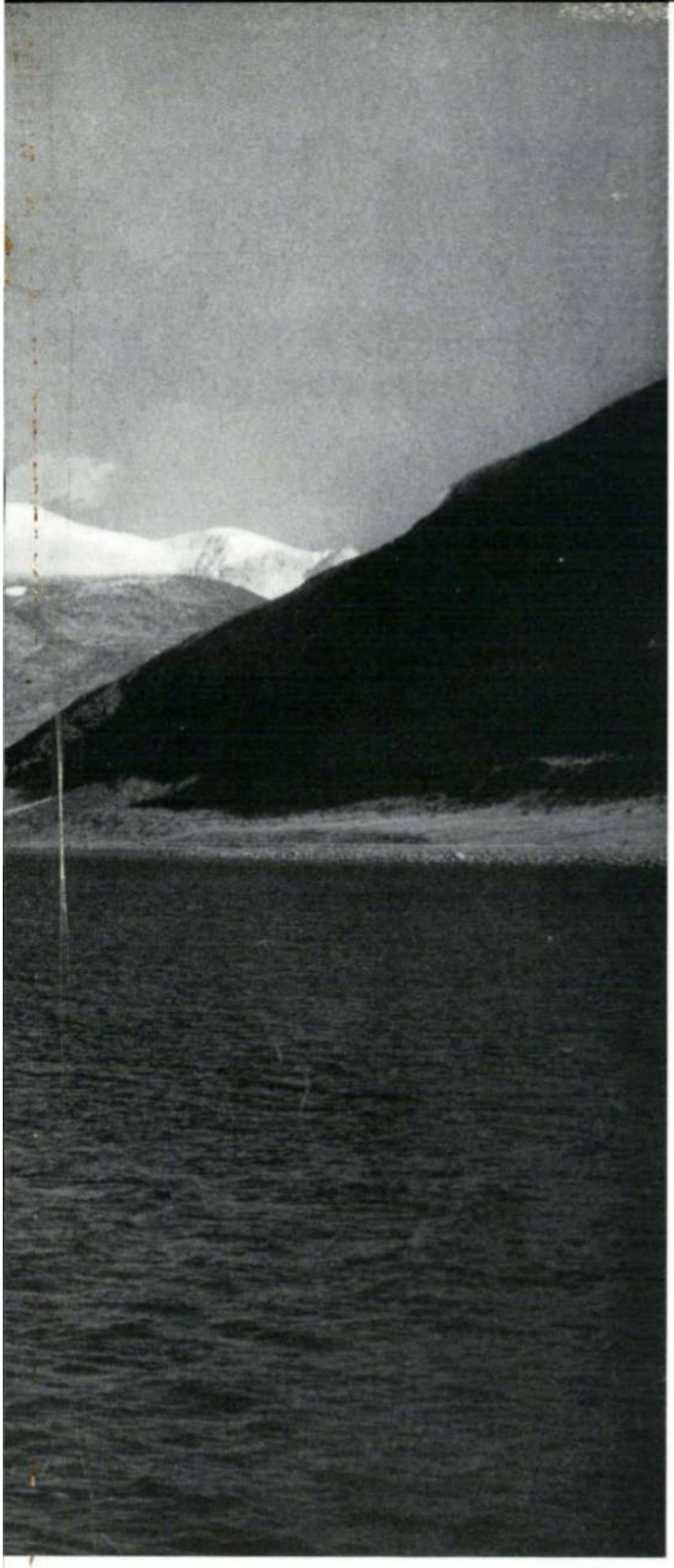
The fifth day we reached Norway House late in the afternoon. It was quite dark when we arrived. We had travelled an hour and a half past the usual camping time to be able to get there that day. Our young guide was exhausted, and one of the drivers had to take his place while he rested on one of the loads. We spent New Year's at Norway House and rested for a little over a week. I was very glad of the rest, and so were the children, though they were very good all the time and sometimes were in the carriole five hours at a stretch. Sometimes I was so stiff from sitting I had to have a man on either side to help me up, and would stand working my legs before I could get out.

We left Norway House with Mr. C. C. Sinclair, who was the accountant at that time. Mr. Donald McTavish, the chief factor, said that my husband must have been crazy to ever allow me to start on such a journey. I'm afraid I felt like agreeing with him! When we started he kindly let me have his "personal" carriole, which was well made and ever so much warmer than the other had been. We still had eight days to travel down Lake Winnipeg to reach Gimli. The weather was very cold and as Kasba had a fancy for taking off her mitts, Mr. Sinclair made a point of pulling down her sleeves and fastening them so that she could not get her little hands out. When we arrived at Gimli we stayed at the hotel for the night. At seven the next morning we caught the train, and in a couple of hours were in Winnipeg, the end of a trip I would not care to repeat.



THE LAND AND ITS PE

A Group of Arctic Photographs



A. F. Sherzer

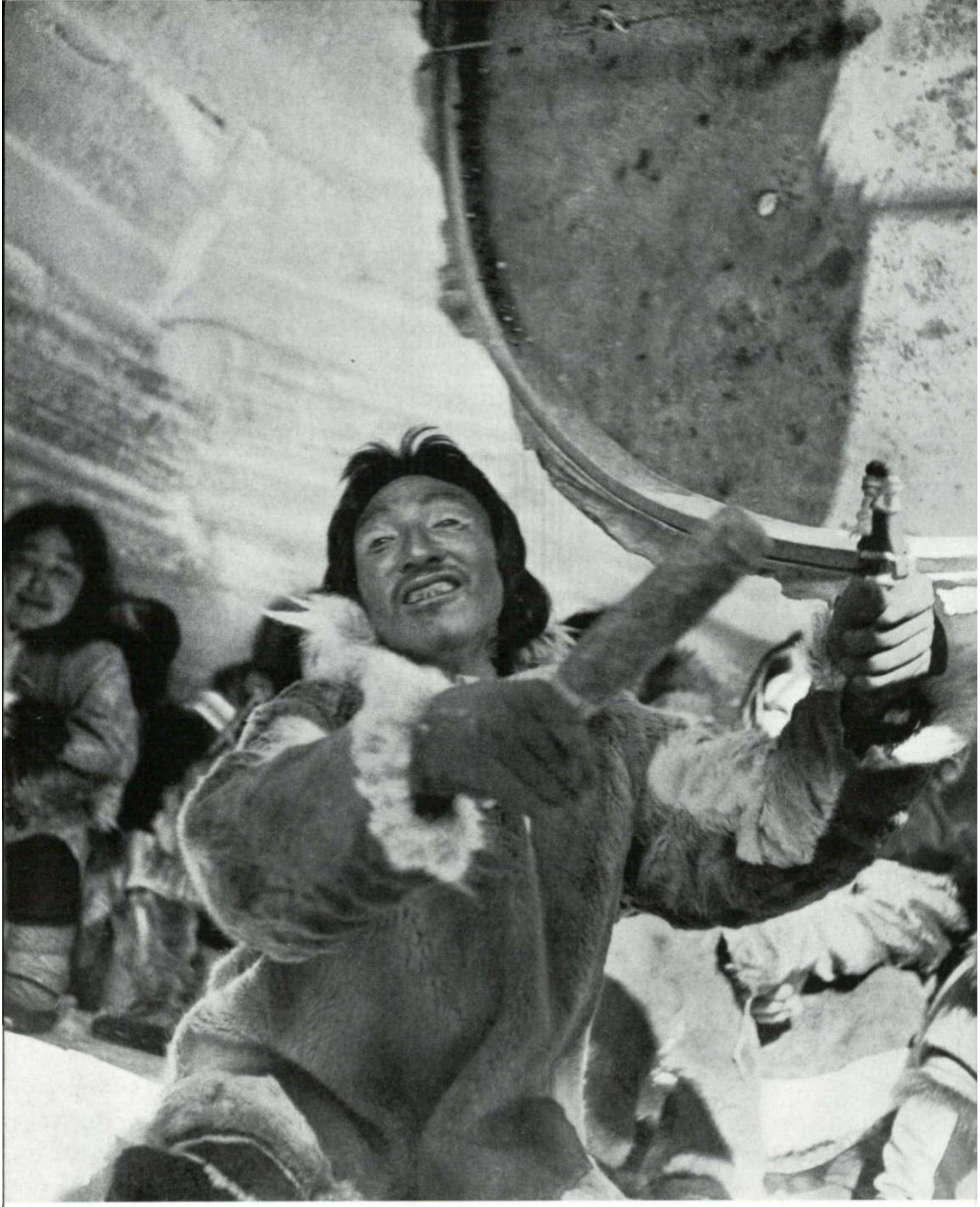
OPLE

In Pangnirtung Fiord

Here is the Arctic. Almost swallowed up in the immensity of rock and snow and sky and sea, a little boat chugs towards the post at Pangnirtung. Standing in it are two red-coated Royal Canadian Mounted Policemen, famed symbols of the law that reaches out even into this lonely land. In the stern sits a servant of the Honourable Company which for centuries has carried trade and the flag to Canada's frontier. And beside him, a man whose people have inhabited that barren country since the dawn of time.

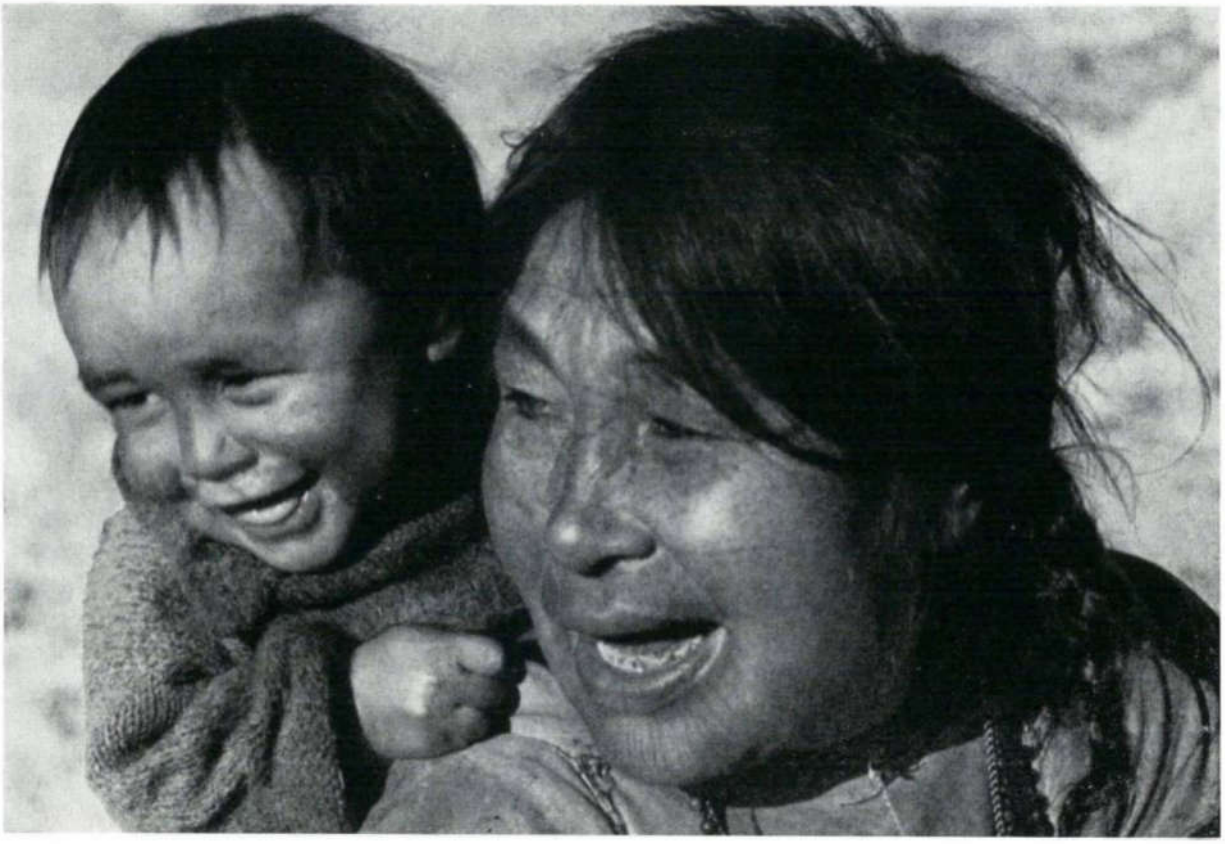
The hills that rise like a backdrop are now bathed in sunlight. But the deep shadow, towards which the boat is making, presages the long night that will soon shut down over the Arctic. For though winter itself has retreated for a space, it is still in sight, crouching there on the mountain tops. Presently it will descend with the fury of the blizzard and engulf the land once more in snow and ice.

Such is the Arctic. On these pages, you will see that although the land is always desolate, it is often beautiful. And that its people, though not often beautiful, are seldom desolate.



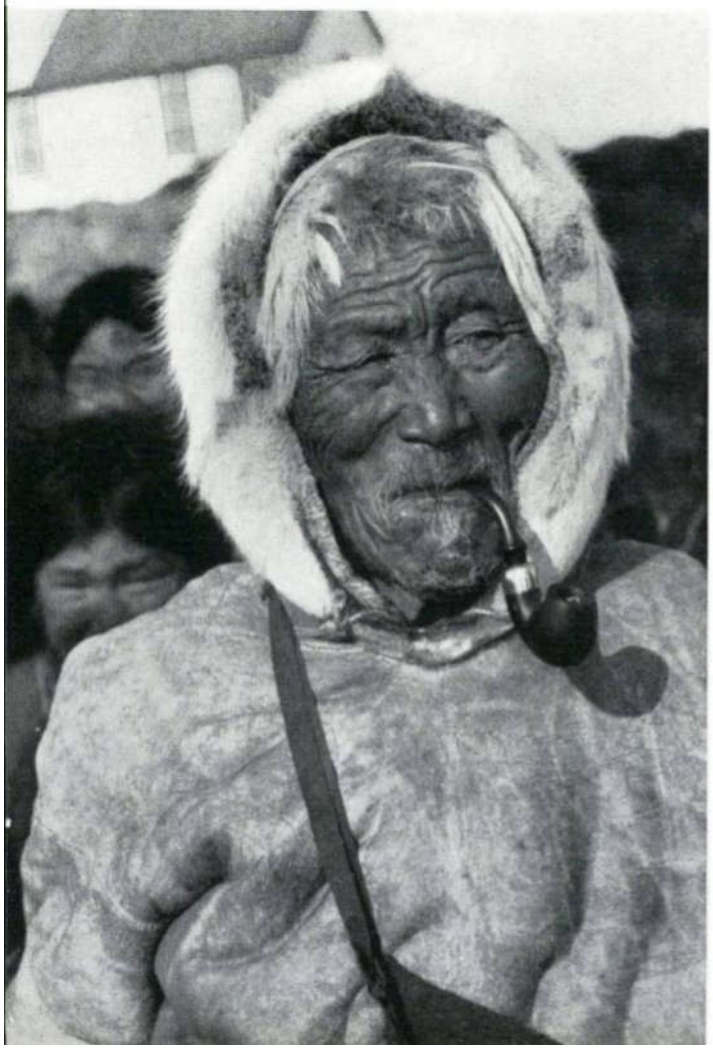
Peruanna dances and drums in an igloo at Perry River.

Gontran de Poncins

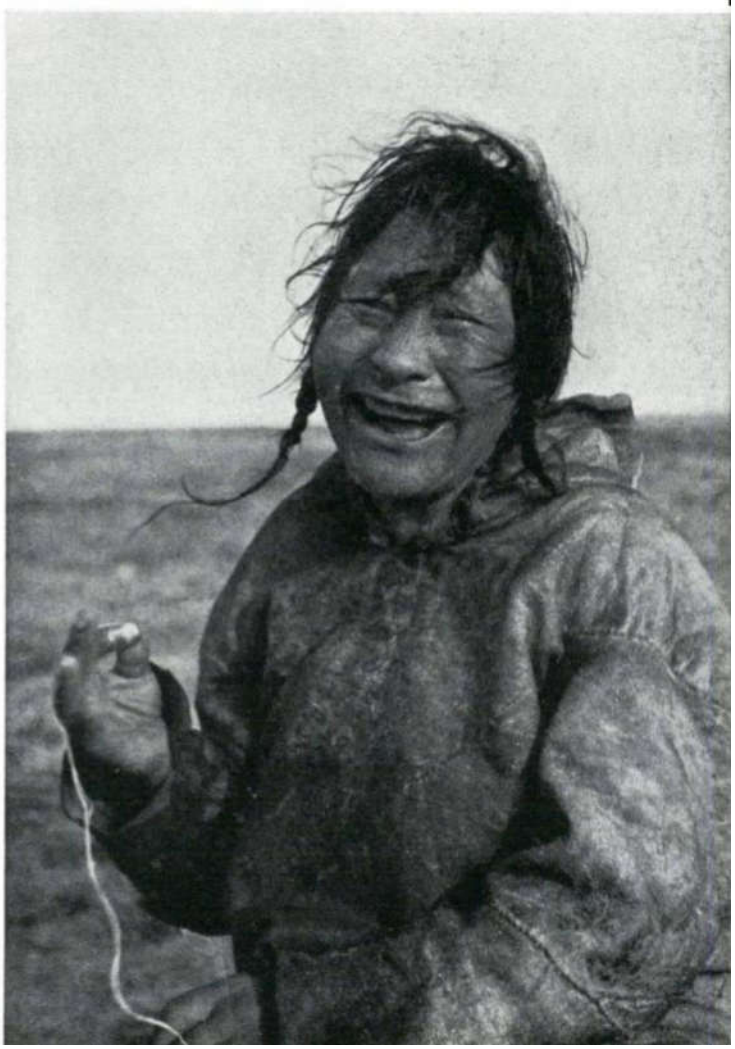


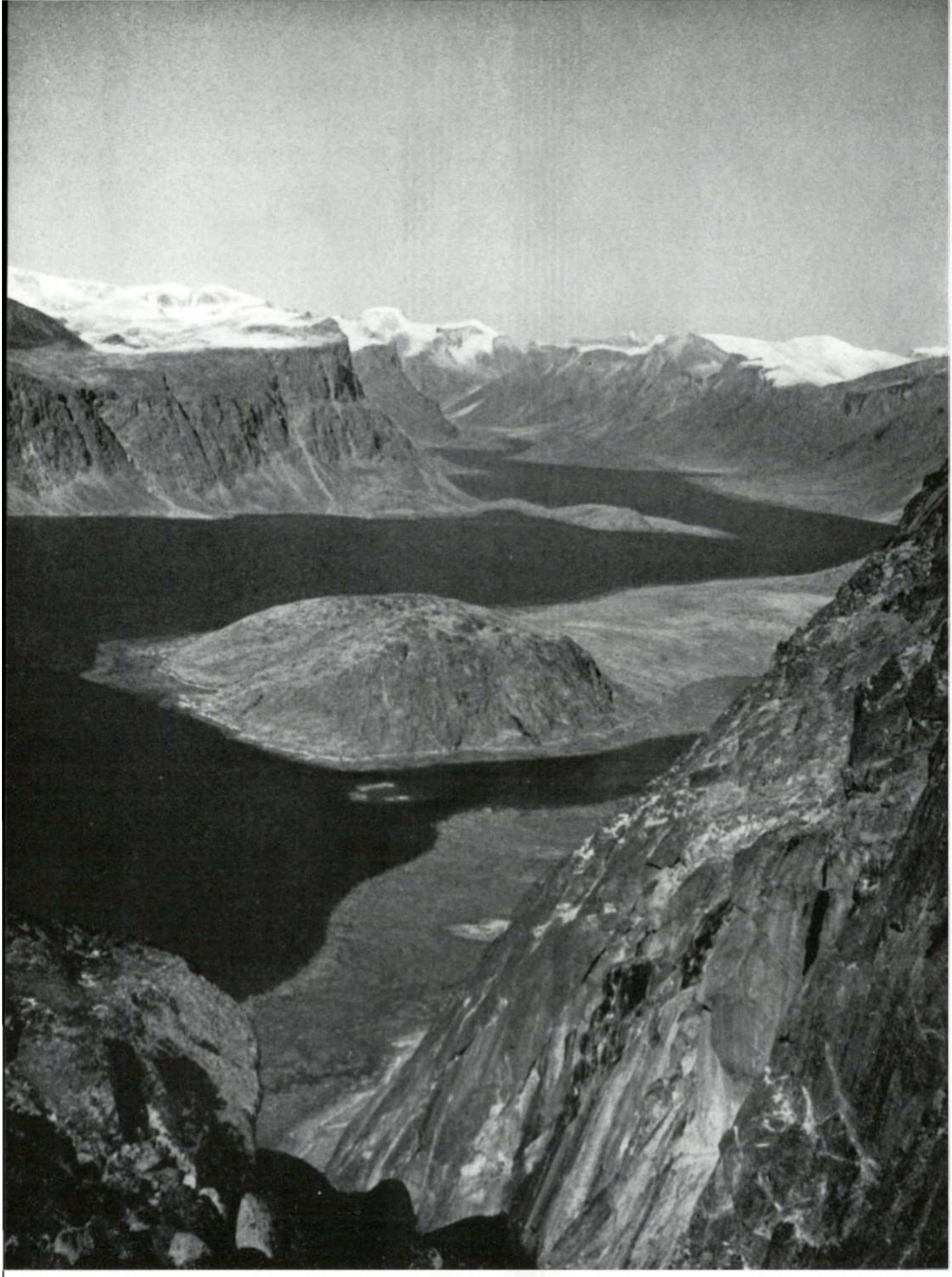
Laughter at Chesterfield Inlet — Rev. P. Schulte

"Happy Man" — Rev. P. Schulte



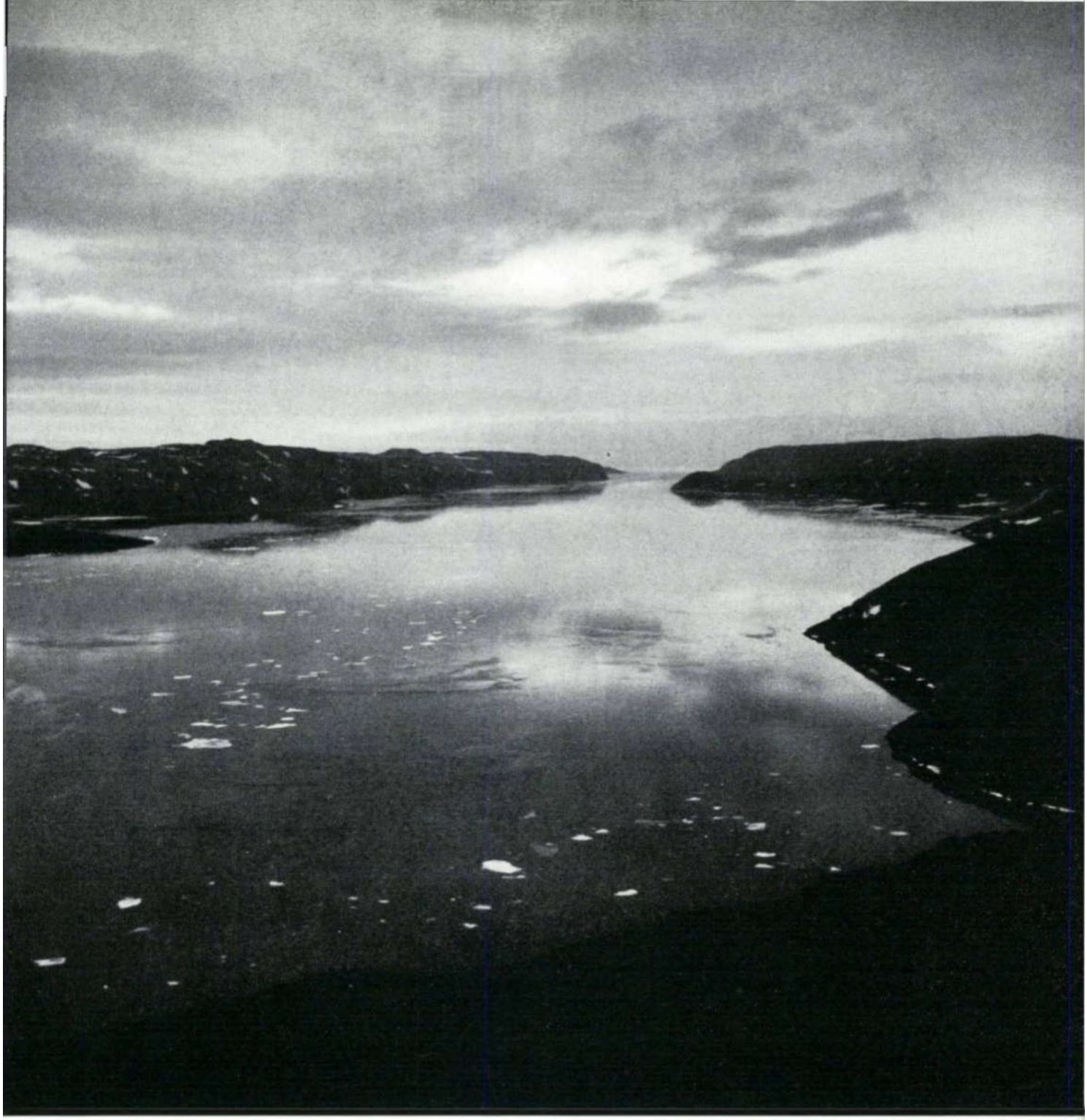
Happy Woman — W. Gibson





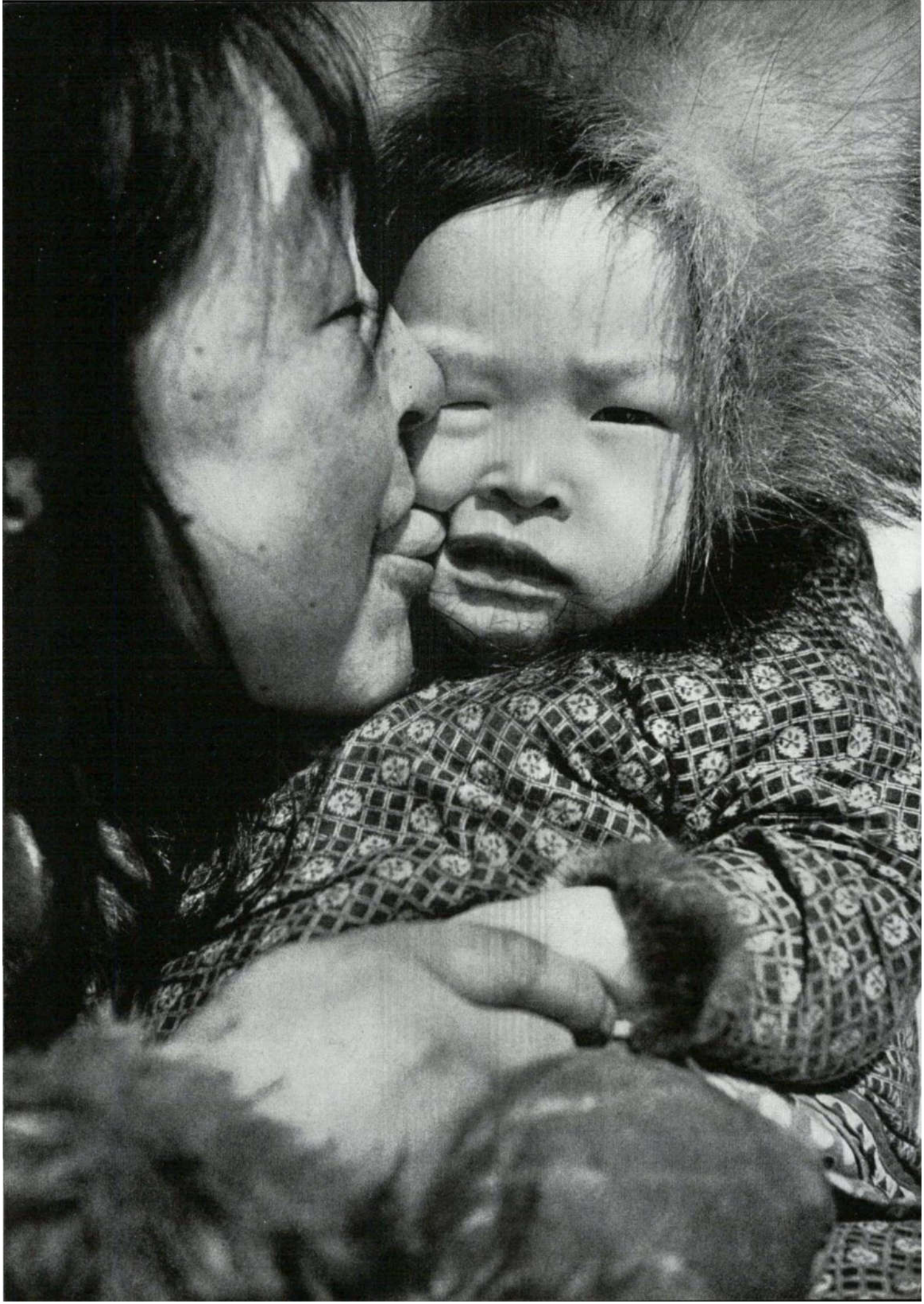
Pangnirtung Fiord

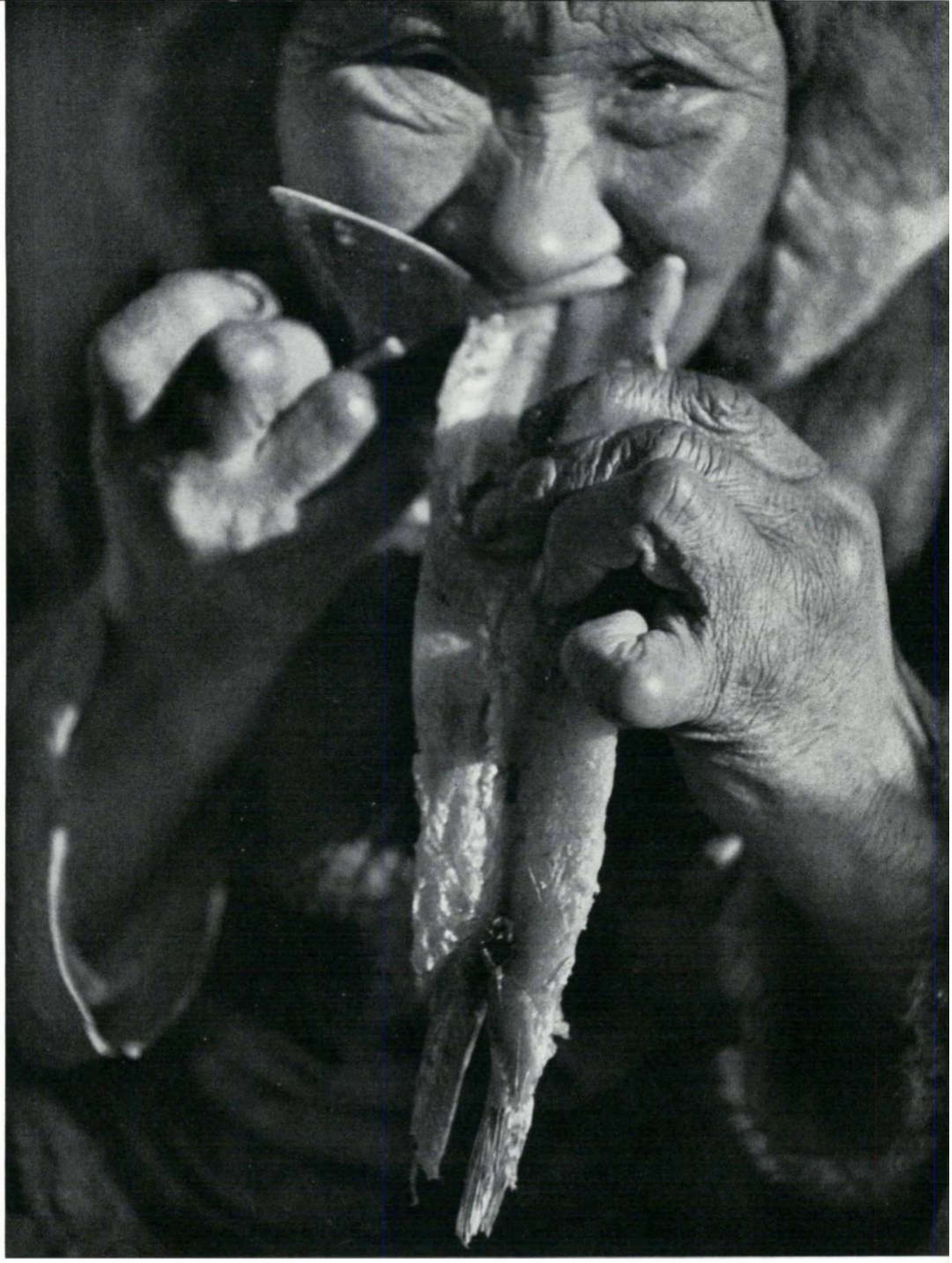
A. F. Sherzer



Northwest Passage — L. A. Learmonth

Here is Bellot Strait, link between Eastern and Western Arctic. On the left is the northernmost tip of the American continent. For centuries, men sought the Northwest Passage, and many died in the search. "The discovery of a new Passage into the South Sea" was one of the objects for which the Hudson's Bay Company was incorporated; but not until 1937 was that passage established as a trade route. In that year, the two Company ships, "Aklavik" from the West, and "Nascopie" from the East, met in Bellot Strait, which Captain Kennedy of the H B C had discovered in 1851.





Gontran de Poncins

Great Grandmother Neeakoognaluk (The Bald One)
cuts her raw fish with an *ooloo*.

Left: Maternal ablutions.

BOOK REVIEWS

PENOBSCOT MAN, by Frank G. Speck. University of Pennsylvania Press, Philadelphia, U.S.A., 1940. 325 pages.

DR. SPECK needs no introduction to the Company's Fur Trade. For many years he was a familiar figure at several of the eastern posts and his *Naskapi* is, perhaps, the classic work on the ethnology of the Indians of the Labrador Peninsula. *Penobscot Man*, Dr. Speck's latest publication, will have an appeal far beyond the comparatively narrow circle of ethnologists, for the writer, unlike many learned men, has that invaluable faculty of presenting scientific facts to the public in an appetizing fashion.

The book deals with the manners and customs of certain bands of Algonkian Indians who roamed the valley of the Penobscot River in Maine, and who, despite constant contact with Europeans, have, until recently, retained their ancient culture almost intact.

The author lays a great deal of stress on the fact that the customs and tribal life of the Penobscot resembled those of the Montagnais-Naskapi and other Algonkian bands of the Eastern Woodlands culture area. Similar hunting methods, tools, artistic forms, and even social ethics existed in both groups and one cannot help but feel that Dr. Speck intends the reader to draw a parallel. Indeed he does suggest the possibility that both peoples were one, originally, and had separated at the time of some prehistoric migration from an unknown location to the northwest.

A characteristic of the Penobscot is that they did not use dogs as beasts of burden, either as pack animals or for hauling toboggans. They admit, nowadays, that dogs could be used for such purposes but make no effort to adopt the idea and are content to drag their toboggans themselves with the aid of a "tump-line," as did their fathers. The Montagnais and the Naskapi peoples, however, though they used not to have any dogs suitable for heavy work, borrowed both the idea and the animals from their neighbours. The Naskapi got their dogs from the Labrador Eskimo and the Montagnais obtained theirs from the French-Canadians after the establishment of the colonies.

Like their Montagnais-Naskapi relatives, the Penobscot were a hunting people and led a semi-nomadic life in the interior of the country. Their winters were spent in the woods where they hunted the moose and deer, and they shifted their camps down to the river side for the summer months in order to take advantage of the good fishing to be found there.

They cared very little for agriculture and practiced it only to a very limited extent. Without a doubt their nomadic existence and their aversion to agriculture was chiefly responsible for the fact that they retained their cultural entity when more static bands lost theirs after coming into contact with white civilization.

Dr. Speck's association with the Penobscot began as long ago as 1907 and he lived with them, often sharing their lot in their winter camps, at various periods, down to 1918. His information, therefore, is first hand and authentic, and he knows his Penobscot.—*J. A. Burgesse.*

LIFE IN THE ROCKY MOUNTAINS, A Diary of Wanderings on the Sources of the Rivers Missouri, Columbia, and Colorado from February, 1830, to November, 1835, by W. A. Ferris. Edited, and with a Life of Ferris and a History of Explorations and Fur Trade, by Paul C. Phillips. The Old West Publishing Company, Denver, Colorado, 1940.

ALTHOUGH this diary was written while the author was still a very young man, it gives a very good description of the life of a fur trader in the period when the American Fur Company was endeavouring to wrest control from the Rocky Mountain Fur Company, and while both were feeling the competition of private traders. The expedition to the fur country, the rivalries in the trade, the relations of the traders and the Indians, the trade with the Flatheads and the Utes, are all described in great detail. In addition there is an appendix devoted to the Indians of the Northwest.

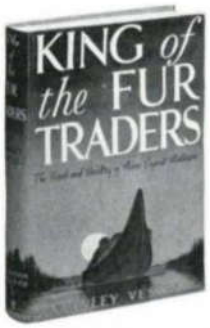
There are a few scattered references to meetings with servants of the Hudson's Bay Company, and to men who at some time were in the employ of the Company, such as Work, Ogden, Ross and Ermatinger. In the editor's introductory essay there is a discussion of the competition between the H B C and its American rivals and of the reasons that led to the withdrawal of the former from the area shortly before Ferris moved into the country.

Warren Ferris was born in 1810, and when he was quite young his family moved west, eventually settling in Buffalo. At eighteen young Ferris left home for Cincinnati and St. Louis. After a year of wandering about, he joined the American Fur Company in 1829 and soon afterward set out for the Rocky Mountain fur country. He served that company until 1835, when he retired, a veteran of the West at twenty-five. The remainder of his life (he survived until 1873) was spent in Texas, where he did some surveying, some farming, and a good deal of speculating in land.

His "Life in the Rocky Mountains" appeared serially in the *Western Literary Messenger*, a weekly published at Buffalo, between January 11, 1843, and May 4, 1844. This publication was short lived and no complete file of it is now known to exist. After an extensive search copies of all the numbers in which the Ferris narrative appeared were found, and they have been used for the text of this volume. The Ferris map of the northwest fur country prepared in 1836 is included, along with several supplementary articles which Ferris published in the *Western Literary Messenger*, and the *Dallas Herald*, at later dates. A biographical sketch of Ferris and an essay on Rocky Mountain exploration and trade 1806-1830 by the editor provide an introduction.

The publication of this diary adds to the source material which is available for the study of the fur trade in the western states. The editor, Mr. Phillips, is to be commended for the care with which he has prepared the volume for publication, and to be thanked for the addition of a useful index, which is too often omitted from works of this type.—*R. O. MacFarlane.*

KING OF THE FUR TRADERS, by Stanley Vestal; Thomas Allen Limited, Toronto, 1940. 299 pages.



AFTER reading this book one is tempted to enquire: What, in its author's eyes, qualifies a person to write a biography of a given individual? It cannot be a thorough survey of the field, for Mr. Vestal (to use the author's pseudonym) has ignored or is unacquainted with the outstanding and recent treatments of his subject. It cannot be the discovery of new material, for not a single new document or other fresh piece of evidence is brought forward. It cannot be an acceptance of the subject's own autobiographical accounts, for Mr. Vestal has rejected Radisson's own statements time and again. What, then, in Mr. Vestal's opinion, goes into the qualifications of a competent biographer?

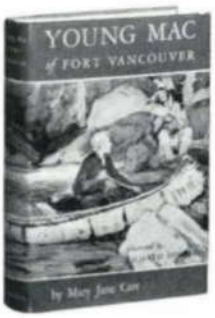
In his preface Mr. Vestal states: "During the last fifty years much careful research has been made with regard to the man's life, and probably little more can ever be recovered." One can only conclude that the author is unaware of all the new material that Professor Arthur S. Morton, Dr. Fulmer Mood, and the reviewer have turned up in the past few years. There is certainly some excuse for failing to know of the scores of new documents that this reviewer is about to publish in her joint biography of Radisson and Des Groseilliers; but surely it is only reasonable to demand of any biographer of Radisson that he consult Prof. Morton's *A History of the Canadian West*. Though the chapters in that book dealing with Radisson, Des Groseilliers, and the beginnings of their association with the Hudson's Bay Company contain a number of errors, they are based on exhaustive research in the Company's archives and would have set Mr. Vestal right in innumerable instances.

To list all the misstatements would be a hopeless task. Only a few will be mentioned, therefore. In the preface one learns that Radisson discovered the Mississippi River and Lake Superior. Poor De Soto! Poor Brule, Jogues, and Raymbault! Only one of his true sisters is mentioned, and his father, and mother, and an aunt, and uncle—all unknown to Canadian records—are mentioned as living in Canada. Des Groseilliers is given scant attention, though surely the leader of practically all of the joint enterprises of the two men. Radisson's birthplace is given as Paris, though no proof of that statement is adduced and there is ample evidence to show that the Radissons were a south Rhone family. Like most of the uncritical writers on Radisson, Mr. Vestal marries him to a *Mary* Kirke, though no shred of evidence has ever been produced to prove that John Kirke's daughter was named Mary. No mention is made of Radisson's other wives. Radisson makes a trip to Hudson Bay in 1688 for Mr. Vestal, for which there is no evidence. Sir James Hayes, deputy governor of the Hudson's Bay Company and highly critical of Radisson, is called Radisson's staunch friend on at least two occasions.

More serious, though also more understandable, are the author's errors in his attempted solution of the problem of the two western trips in which Radisson claims to have participated. Mr. Vestal's scheme is a possible joint trip with Des Groseilliers, 1654-56, and actual trips 1658-1660 and 1661-63. As a matter of fact, Radisson could not have been absent from Canada on a western trip lasting from 1654 to 1656, since a document signed by him in Quebec in 1655 is still in existence. Neither Des Groseilliers nor Radisson could have been in the West in 1656, 1657, 1658, or the early months of 1659, for documents can be produced to prove the two men's presence elsewhere until the end of May, 1659. There is evidence to prove that Des Groseilliers was on a western trip for eleven months thereafter. No joint trip to the West was possible between 1660 and 1662, because documents still in existence show that Des Groseilliers was in France much of that time. Thereafter the two men were in Acadia, New England, and on the high seas until 1665. Hence the explorers did not get to Hudson Bay during the course of their second western trip, as Mr. Vestal claims.

The manuscript of Radisson's autobiography preserved in Samuel Pepys's papers can be considered nothing but a translation, as a certain entry in a Hudson's Bay Company ledger covering the year 1669 demonstrates. Since Mr. Vestal bases much of his biography on that manuscript, and since the translation is obviously very imperfect, almost the entire biography would be open to serious question at best. Add to the fact Mr. Vestal's constant interjection of details that can come only from his own imagination, and his preference for such uncritical writers as Arthur T. Adams, Donatien Fremont, Sarah Larkin, Irene M. Harper, and Agnes Laut, when the works of Louise P. Kellogg and Arthur S. Morton are available, and the result is confusion worse confounded.—*Grace Lee Nute.*

YOUNG MAC OF FORT VANCOUVER, by Mary Jane Carr; illustrated. Thomas Y. Crowell Company, New York, 1940. 238 pages.



ANYONE over the age of eight should not only enjoy this book, but also learn a good deal from it. It's about a young boy from Red River who comes to live at Fort Vancouver in the days when the Hudson's Bay Company ruled supreme in the Oregon. The author lives in Portland, just across the Columbia from the site of the old fort, and she knows whereof she writes.

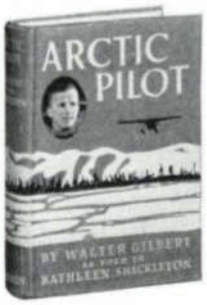
It's easy to see, too, that she has read a good deal about the history of that era in the fur trade, and about the customs and habits of the Indians around the fort. But she never gets didactic about it. She weaves it so deftly into the fabric of the story that the reader isn't conscious that he is actually learning history. The only part where the author goes astray is when she touches on the life at Red River. There was no skiing around Fort Garry a hundred years ago, and if there were any mountains of snow in those days the climate must have changed considerably.

But these are small points. Young Mac, son of a well educated Scots fur trader and a Cree half-breed, is as attractive a young chap as you would meet anywhere. He's no goody-goody, and neither is he objectionably tough. He wants very much to be a voyageur,

like his dead father's friend, Henri, of the York Factory Express. But after a year under the kindly care of Dr. McLoughlin at Fort Vancouver, his horizons widen, and he goes over to study medicine at his father's university in Edinburgh.

This reviewer has always considered that the great fort on the Columbia, with its herds of livestock, its orchards and wheatfields and meadows and flowers, set in the midst of a beautiful country not far from the sea, must have been the most coveted post in the Company's trade. And Miss Carr does nothing to lessen this impression. She writes so sympathetically of the British occupation of the Oregon, and the Company's treatment of the natives, that the book should appeal to Canadians just as much as to Americans. On the whole, it is highly recommended reading, especially for boys.—*C.W.*

ARCTIC PILOT, as told to Kathleen Shackleton by Walter Gilbert. Thomas Nelson & Sons, Toronto, 1940.



ARCTIC PILOT is a readable record of northern flying told to the author by a man whose name is vitally linked with the blazing of Arctic airways. His epic flights and the remarkable achievements of other northern fliers are recorded in such an unassuming manner that one feels a great deal more should be written of their exploits.

His tribute to "old S.K.," as he affectionately calls the 'plane G-CASK that carried him over many thousand miles of Arctic terrain, brings one to understand the strong ties that bind man and the machine, who together overcome seemingly insurmountable difficulties.

The search for the McAlpine party entailed considerable suffering—but as an experience it was valuable. Summed up in the words of Roy Brown, whose opinion is typical of all northern fliers: "The only unusual thing about it was that we were flying up there at a time when we had no business to."

The flight over the Magnetic Pole was unique and extremely hazardous, but the principal objective; viz., the finding of Sir John Franklin's grave, sounds a little fantastic. The reader is relieved to know that Stan Knight's aerial camera was constantly in action, and that the late Major Burwash gathered together some pitiful relics from the last camp of some of Franklin's seamen and brought them to the National Museum.

The tribute to "the black gang," as the air engineers are called, is a very fine one and thoroughly deserved. Some of the salvage jobs described are truly remarkable and all northerners will appreciate the resourcefulness of the "mechanics" and agree with Gilbert in rating them tops.

Every book of this kind naturally contains a few errors. One of the most noticeable of these is the assertion that Lord Tweedsmuir was the first Governor-General to visit the North. Actually, Baron Byng preceded him there.

Originally this book was to have been written by Douglas MacKay. After his death, the task was taken over by Miss Kathleen Shackleton, several of whose sketches of northern characters have appeared in *The Beaver*.—*A. Copland.*

SEE CANADA NEXT, by Larry Nixon; illustrated. Little, Brown & Co., Boston, 1940. 287 pages.



FOR most of us, the favourite indoor sport at this time of the year is planning a summer vacation. Larry Nixon, author of *Vagabond Voyaging* and *American Vacations*, has written a most entertaining and informative book on vacation possibilities in Canada that should be very popular with both American and Canadian holiday seekers. For any type of vacation . . . for every pocketbook, *See Canada Next* will tell you where to go, what to see, how long it will take, and how much it will cost. A series of very friendly "Letters to Larry" introduces you to the exciting possibilities of a voyage down the Mackenzie River by stern-wheeler, a canoe expedition into northern Ontario, a motor tour around the Cabot trail in Nova Scotia, and a dozen other holiday jaunts well worth investigating.

The usual questions about border regulations, camping facilities, rates, hunting and fishing licenses, and hotels are well and thoroughly answered. Complete detailed information on the tourist attractions of every province is listed in an easy-to-read appendix.

The most surprising thing found in this book is the number of holiday possibilities in Canada discovered by Mr. Nixon, which are practically unknown to most Canadians. He describes dude ranches in British Columbia and fishing camps in Ontario, which would seem like the perfect answer to a perfect holiday . . . and the costs are certainly reasonable!

This year, when more and more of our good neighbours in the United States are thinking of Canada for their holidays, and we Canadians are of necessity holidaying at home, *See Canada Next* is definitely worth reading. And, incidentally, it will probably save the reader many times its cost.—*R.M.T.*



WE MUST MARCH, by Honore Willsie Morrow; George J. McLeod, Toronto, 1941. 427 pages.



THE reprinting of this book, which was first published in 1925, testifies to the continued interest in, and the excellence of, this fascinating saga of the westward trek that colonized the Oregon Territory.

Mrs. Morrow's keen interest in American pioneer history, her sensitivity to the drama recorded in the journal of Narcissa Prentiss Whitman—the main source of her information—and her ability at weaving words upon a weft of fact, have made this an especially readable book.

It is biography translated into fiction, with all the appurtenant facts and characters presented as they appeared in life during the years 1836 to 1843, that period which determined whether the Oregon Territory should come under the jurisdiction of Britain or

the United States. It is the story of a superb woman, who might have adorned the drawing rooms of Europe as well as those of the United States, or chosen the career of a prima donna, so lovely was her voice. But instead of using her many talents exclusively for the saving of Indian souls, which had been her purpose in marrying a doctor-missionary and accompanying him into the western wilds, Fate decreed that she was to be a deciding factor in the international situation involved. It was to be her role to place the destiny of Oregon with the United States, and also to prevent a war between her country and Britain.

Not only does *We Must March* tell the personal story of Narcissa and Marcus Whitman, but it pictures life at the Hudson's Bay Company posts of that time, stresses their importance, and states the well defined policies of the Company that resulted in controlling peacefully the Indians they dealt with. Also, Mrs. Morrow has brought to life in her story two strong men of the Hudson's Bay Company, Governor George Simpson and Dr. John McLoughlin.

Part of a letter from Governor Simpson to Mrs. Whitman, dated May 6, 1837, from the Fraser River, is applicable to the present day:

"For look you, Madam, when foreigners like Napoleon can run mad through Europe and but for England's fighting will and power, destroy the peace of the world, it behooves all people of British descent to think of their heritage and responsibility. . . The time will come when Britain's hands will have to be upheld by all the sons and daughters she has sent out to colonize the world, or chaos will reduce Europe to savagery."

Actually, Simpson was on the Ottawa at that time, and indeed he and Mrs. Whitman were not in the Oregon country together before 1841. But in a work of fiction, the author may perhaps be forgiven this license.—*Edith Y. Kuhns.*



FUR TRADE APPRENTICE, by Charles Clay; illustrated. Oxford University Press, Toronto, 1940. 360 pages.



LIKE *Young Mac*, Mr. Clay's book is full of information for boys about the old fur trade. But, unlike Miss Carr's story, this tale of two young fur traders is highly didactic. If your boy wants to learn how things were done in the north woods back in 1775, *Fur Trade Apprentice* is the book for him. But if he's looking for real excitement, he won't find it till he reaches page 157. At that point one of the boys has a fight with a grizzly. Much later on, the two of them get captured by Indians, and for a while the action is fast and dramatic. Mr. Clay handles this type of material so well that it's a pity there's not more of it.

It's a pity, too, that he feels obliged to drag in that timeworn situation in which Our Heroes get chased by wolves. If he is as familiar with northern life as we are led to believe, he certainly knows that such a situation is absurd.

The historical background of the tale is Henry's and the Frobishers' winter north of Cumberland House in 1775. Henry, we might point out, was not an Englishman, but a New Jerseyman; and Amisk Lake is not in Manitoba. But what puzzled us right from the beginning was: what were the Montreal traders doing in charge of a Hudson's Bay Company post?—*C.W.*



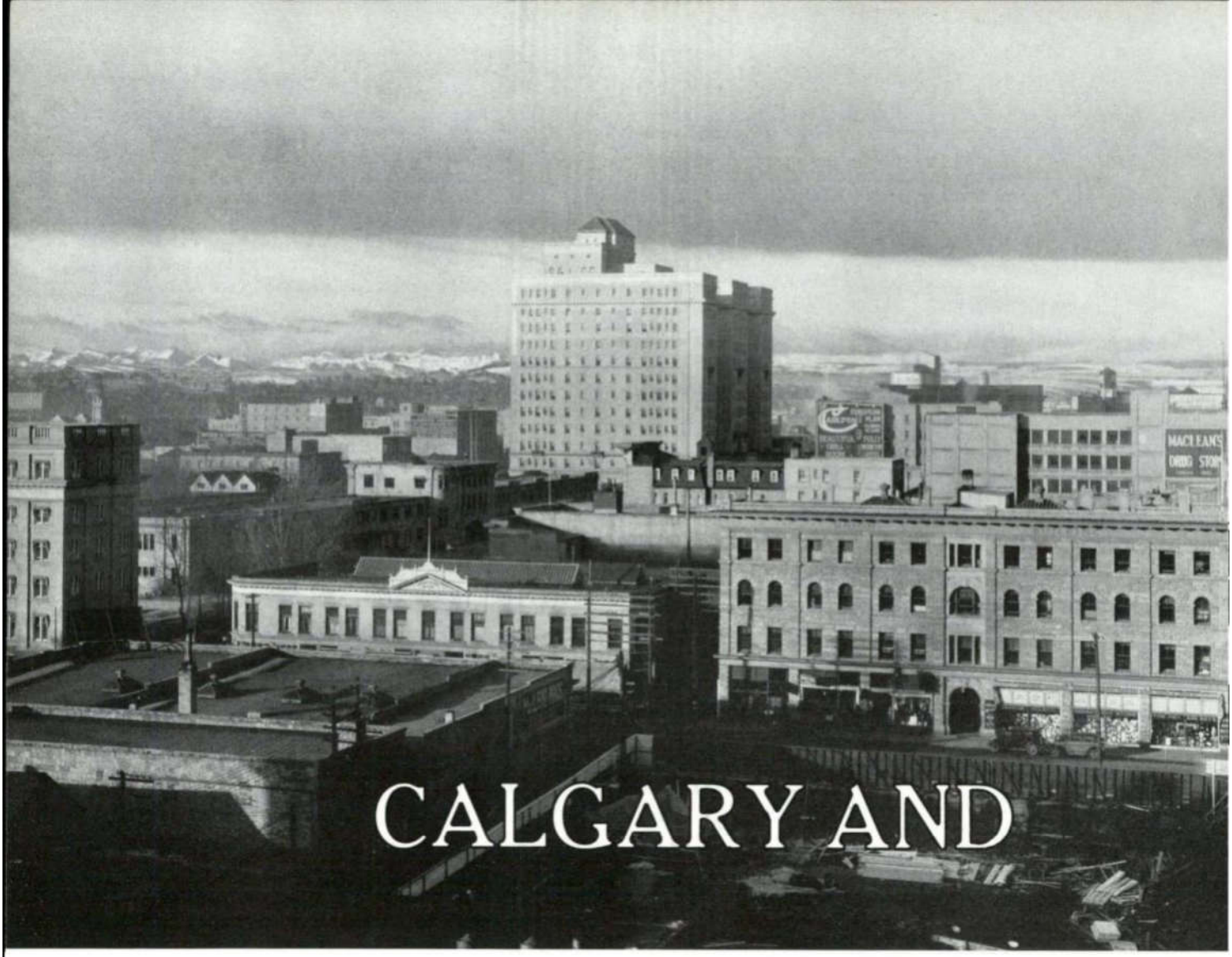
LAND OF THE GOOD SHADOWS, the life story of an Eskimo woman, by Heluiz Chandler Washburne and "Anauta." The John Day Co., New York. 329 pages.



ANAUTA, whose life story is told here, comes of a family of Fords known and renowned in the Arctic for many years. Some of them are to this day pursuing their callings in the "Land of the Good Shadows"—trading, trapping and adventuring in the Arctic where so much depends on individual resource and initiative. Although the book is divided into three parts, there are two aspects which will particularly interest the reader. One is that part of Anauta's story dealing with her life in the Arctic among the Eskimos and the other is her life in what we call "civilization."

The appeal of Anauta's story of her life in "her" country is not concerned with her many adventures and tragedies, though these are real enough, but rather with the more or less minutely detailed account of everyday life in that stern land. There are brought to light many illuminating details of the Eskimo approach to the problems of life which, in such a country, are concerned primarily with man's more elemental needs. But Anauta has a good deal to say also about Eskimo philosophy, their code of morals and their simple beliefs. When we consider that Anauta is writing of her early career after a considerable lapse of time, and after her experiences in "civilization" must have dulled her memory of many of the details of Eskimo life, there are surprisingly few inaccuracies, so that the reader will gain a true insight into much that is of absorbing interest in the daily activities of the Eskimos in their homeland.

Of even greater interest are Anauta's reactions to the impact of our civilization. The naive manner in which she describes these is exactly how an Eskimo would look on our way of living. It is difficult for the average reader to realize the Eskimo approach to our civilized mode of life, but in describing this, and setting it down with a great deal of detail, Anauta has rendered a great service. Ordinarily, such detail would be rather tedious but when Anauta describes her experiences, our interest never lags. What would the average Eskimo think of our currency? our commercial life? our extremes of wealth and poverty? our aggressive and relentless acquisitiveness? our organized charities? the sectarianism of our Christian civilization? If the reader would gain even a partial insight to these and other questions, he could not do better than to read Anauta's poignant description of her life in "our" land. —*J.W.A.*



CALGARY AND

Looking down 8th Avenue, the Company store is the large white building on the right. On the left are the Rockies.

FROM a police outpost and fur trading point to a city of 85,000 people in a span of sixty-five years—that is the story of Calgary. The credit for having been the first white men to enter the vicinity of the present city is given by history to possibly four explorers. That De Niverville established Fort la Jonquière for the Governor of New France at this site in 1751 is merely speculation. Both Professor Morton and J. B. Tyrell place the site of that fort as not far from the site of the H B Fort a la Corne—that is, some twenty miles *east* of the forks of the Saskatchewan.

Anthony Henday of the Hudson's Bay Company was probably the first white man to reach the country between Edmonton and Calgary in 1754. In 1787 another explorer ventured into the territory visited by Henday. David Thompson, in the employ of the Hudson's Bay Company, proved to be Canada's greatest topographer. It was he who first viewed for the Company the Bow River valley and reported an abundance of buffalo, red deer, and other wild life. In 1801, having joined the North-West Company, he returned and surveyed the country south from Rocky Mountain House, and reached the Bow River at what is now Calgary; he surveyed the north side of the Bow River, crossing it below the bend and went on to the Highwood River, reaching it two miles above its mouth.

Peter Fidler, in 1792, trading and exploring for the Company, crossed the Saskatchewan, Red Deer, and Bow Rivers and on his return trip supposedly discovered large deposits of coal.

Missionaries followed the original explorers, living and working with the Indians. The first of these to introduce Christian principles was the Rev. Robert Rundle. In 1841 he visited the Blackfeet Indians encamped on the Bow near the present site of Calgary. A few years later, in 1852, Father Lacombe, the celebrated Roman Catholic missionary, stationed at Fort Edmonton, was next to contact the Indians in the Bow River valley. For fifteen years he devoted his time and energy to the Blackfeet, and later was followed by two priests who formed a mission. The Rev. John MacDougall was assigned to missionary work in the southwest. He worked among the Stonies, near the present site of Morley, from 1873, occasionally visiting the Blackfeet and Piegans, who ranged east of his headquarters.

The work of the missionaries during this early period had a steadying effect on the Indians, but after the Company surrendered its jurisdiction over the West to the Dominion Government a law-enforcing body was badly needed to control the whisky trader. After investigations and repeated recommendations, action



THE COMPANY

by Kenneth Coppock

The dark cloud is the "Chinook Arch," forerunner of the warm wind of winter.

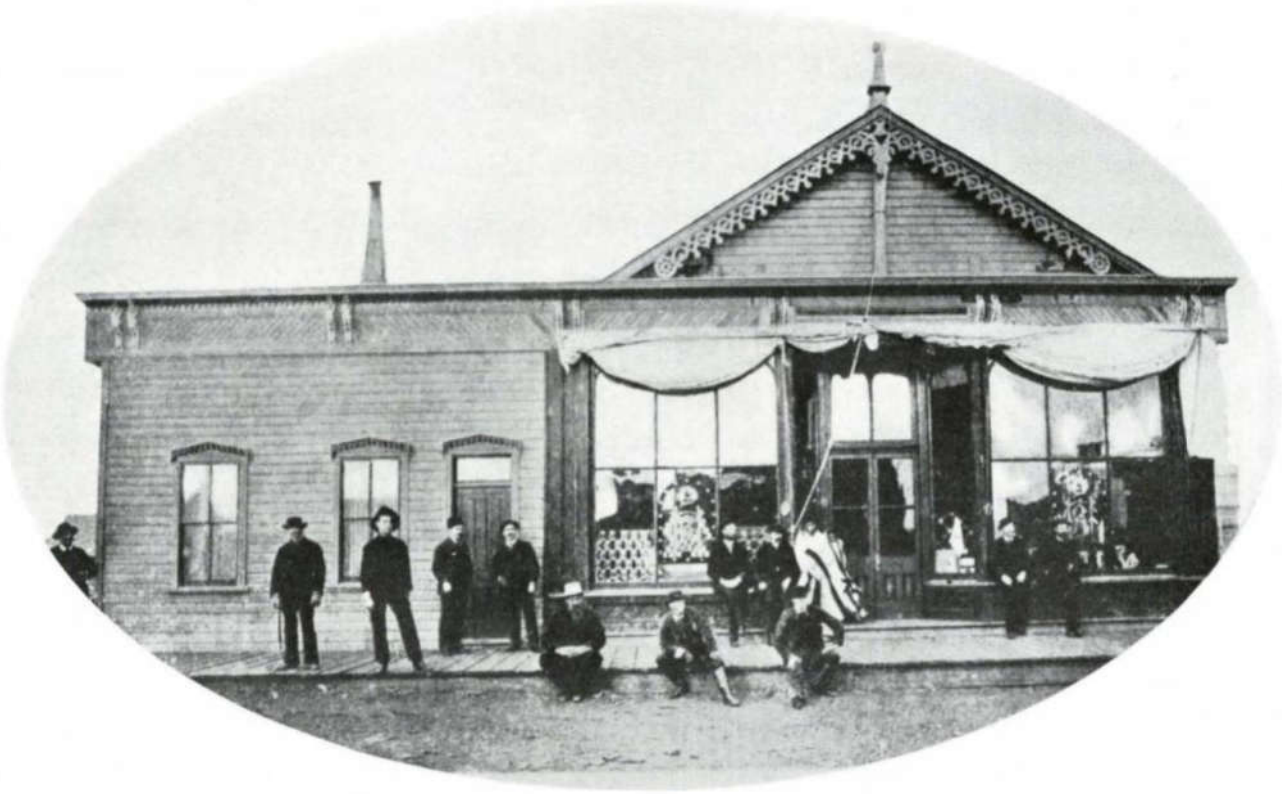
by Ottawa in 1873 resulted in the formation of the North-West Mounted Police. The force was immediately recruited, and the first three divisions passed that winter at Lower Fort Garry. By June, 1874, over three hundred and fifty men were ready to set forth for the West to restore order, and to act as a colonizing agency. Assistant-Commissioner Macleod was sent to the land of the Blackfeet. With his half-breed interpreter, Jerry Potts, he and his men laboriously pushed overland from Dufferin, Manitoba, to the Old Man's River, where they established Fort Macleod.

The valleys of the Bow and Swift (Elbow) rivers were favourite hunting grounds for the Blackfeet, Sarcee, and Stoney Indians. The elastic wood of the young Douglas fir made for good bows (the origin of the name Bow River); the high banks of the rivers afforded protection from the winter winds; the rivers, because of their swiftness, seldom froze, and wild game abounded. It was at this point, the meeting of the two rivers, that the whisky trader knew he would meet his customers. As early as 1871 Fred Kanouse, a whisky trader, had built a fort on the Swift for Healey and Hamilton, and from this point traded "fire-water" and "red-eye." Although the fort was raided by the Indians, whisky traders continued to come into the district. To meet this situation Col. Macleod decided in August, 1875, to send a detachment to the district, under the command of Inspector Brisebois. After a tedious journey, "F" division, well supplied with wagons, baggage, food and tents, arrived at the junction of the Bow and Swift (Elbow) rivers.

Far to the west of them were the innumerable foothills, and to the east the open prairies, while before them was a spacious valley through which two good-sized rivers wound their ways; the Bow coming from the west, and the Swift from the southwest. The site of the present city of Calgary was covered with long grass and the numerous small lakes were literally swarming with wild fowl. For the site of the new post the police chose a bit of high ground at the confluence of the two rivers, on the west side of the Swift.

The division lived under tents that winter, but with early spring logs were floated down the Swift and soon I. G. Baker & Co., an American trading firm with headquarters at Fort Benton, Montana, had under contract completed the fort, stockade and all. And in honour of the inspector in charge it was named Fort Brisebois.

The half-breeds who helped in the construction of the fort settled close by, and soon, assured of police protection, traders and Indians were attracted. I. G. Baker & Co. constructed their trading post, bring-



H B C store of 1884. Note the Indian wearing H B "Point" blanket.

ing in their supplies by bull train from Montana. From its old post twenty-five miles west, the Hudson's Bay Company moved down one of its buildings, placing it on the north side of the Bow. A two-storey manager's residence and an interpreter's cabin were constructed from logs floated down the Bow. Soon, however, the Company located a small trading post east of the Swift or Elbow River. John Bunn of Winnipeg was placed in charge. The wife of one of the managers was the first white woman to reside in the "Elbow," as the tiny settlement was called. Most of the food was freighted from Fort Benton, Montana, by bull train, but fresh vegetables came from the farm of John Glenn, who had settled about ten miles south, and had the first irrigation system. Buffalo still roamed the open prairies and provided large quantities of food and buffalo hides. The goods for the Hudson's Bay Company were brought from Fort Edmonton by George Emerson, who was in charge of a string of Red River carts for the Company. The post supplied natives with the necessary equipment for hunting, such as muskets, blankets, blanket capotes, tobacco, Hudson's Bay knives and food supplies.

Upon the suggestion of Col. Macleod, the settlement, which now boasted a H B C post east of the Elbow, and the Mounted Police barracks and an I. G. Baker store on the west, received the name "Calgary," the title of his old estate in the Isle of Mull, which meant "clear running water," and was considered appropriate for the name of the outpost at the fork of the two rivers. The frontier settlement for the next few years proved to be a popular trading centre between Edmonton and Fort Macleod. There were those however, who, despaired for the future; settlement was slow and it looked as though Calgary would be only a frontier post. The news in 1881 that the transcontinental railroad would pass through Calgary assured its future. Railroad surveys were made and the firm of Langdon & Sheppard of St. Paul, Minn., was given the contract for the laying of steel. By August 9, 1883, the end of steel had reached the banks of the Bow, and a week later a bridge across the Elbow had been raised and a station set up west of the river.

In 1881, the Governor-General of Canada, the Marquis of Lorne, travelled by rail and across country to see for himself the possibilities of the West. He raised the first Canadian flag in Calgary in September, 1881, and, travelling with police escort, visited the surrounding plains and foothill country. He proceeded to Fort Macleod, and thence to the Pincher Creek district. Upon his return to Ottawa, his glowing reports of the vast ranching and agricultural possibilities of the West had such an electrifying effect that soon eastern Canadian and English capital became interested in the formation of huge ranching companies.

New leasing regulations were put into effect in 1881; individuals or companies could lease for one cent per acre per year a maximum of 100,000 acres, but lessees must have one head of stock for each ten acres within three years. Previous to 1881 there had been some stock raising; Rev. John McDougall had brought a small herd from Edmonton in 1874 and in the following year had brought in one hundred steers and breeding stock from Montana. A number of American ranching companies had driven thousands of head of stock from the over-grazed ranges of Montana and Wyoming to the well grassed regions to the south and east of Calgary, but with the visit of the Marquis of Lorne and the new leasing regulations the ranching industry in Western Canada had its birth. The Cochrane Ranching Company with its huge lease extending from Calgary west to the Stony Indian reserve was the first large ranching company formed, and within two years it had brought in from Montana an estimated ten to twelve thousand head of stock. The North West Cattle Company was formed with eastern capital and ranged the famous Bar U brand in the Porcupine Hills. Many large ranching companies were launched and the West entered the "golden era" of ranching when many fortunes were made.

Calgary became a distributing and marketing point for this new industry; settlement was also attracted. After 1890 those wishing to build new homes in the West came by the thousands from the south, from British Columbia, and from eastern Canada. The period following the construction of the railroad was an eventful one for the settlement, which but a few years before boasted only a fort and two trading posts.

The Hudson's Bay Company had been quick to foresee the future development—the transition from the fur trading days when a small post and trading stock sufficed, to the days when it would be necessary to carry a larger and more diversified stock of merchandise. The headquarters of that fur trade district had been moved from Edmonton in 1883, and Chief Factor Richard Hardisty was transferred there at the same time. Larger accommodations were necessary and the Company abandoned its trading cabin east of the Elbow to occupy, in 1884, a new and larger frame store west of the Elbow. Growth of the settlement however, was, so rapid that the Company, in order to be in advance of development, moved further west on Stephen (8th) Avenue to Centre Street, where in 1891 it occupied a two-storey stone building.

For several years prior to 1885 there was indecision in the direction in which the settlement would grow. Most of the earlier development was on the east side of the Elbow River, but, with the placing of the railroad station and the new Hudson's Bay Company store on the west side in 1884, it became evident that the growth of the village would be in that direction. By 1885 the townsite had been almost completely transferred to the west side of the river. A general awakening stir was apparent in the population of five hundred. It was felt necessary to form a civic government, so an election was held in January, 1884, giving Calgary its first Mayor, George Murdock. The first duty of the mayor and his councillors was to request from the Lieutenant-Governor of the Northwest Territories the incorporation of the settlement as a town, and Calgary received its certificate of incorporation on November 17, 1884.



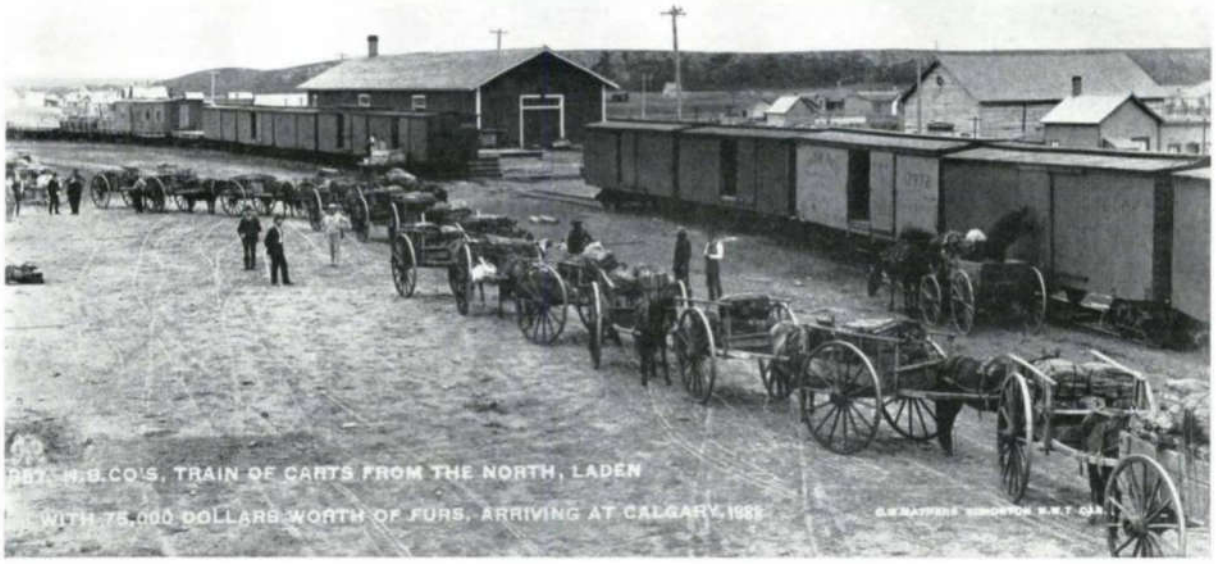
The 1891 store, Centre Street and 8th Avenue.

Following closely the arrival of the railroad, came the first issues of the first newspaper in Calgary, *The Calgary Herald, Mining, and Ranch Advocate, and General Advertiser*. The August 31, 1883, issue carried advertisements of the Hudson's Bay Company, G. E. Jacques, I. G. Baker & Co. and many others.

A regular post office was established in 1883, with William Bannerman as postmaster. Also in the same year the Dominion Land Office was opened. A ferry operating at the present site of Langevin bridge was the means of transportation across the Bow River. Goods coming to the Hudson's Bay Company store had to be unloaded and ferried across as they came from Edmonton. About one hundred and twenty carts also went north each month and charges were one dollar for each cart and twenty-five cents for each animal, rates being doubled after sunset. Since Edmonton had no railway, brigades of Red River carts used to bring the furs down to Calgary for shipment to the East.

The Calgary and Edmonton railroad, completed in 1891, did away with those cart brigades, and opened

Lack of a railway to Edmonton before 1891 necessitated these cart brigades to Calgary.





At the Calgary Stampede, 1940. (C.N.R. photo.)

up a vast area between the two pioneer towns. In 1893 the first train came into Calgary over the newly completed Macleod to Calgary line of the Canadian Pacific. The transportation pattern of the West had now taken shape in the short span of a few years. The result of this development was a movement of settlers the like of which the west had never seen before. Agricultural lands were in keen demand from new homemakers who in eastern Canada, the United States and British Columbia had heard of the possibilities of the prairies. Calgary became the clearing point for a vast, rapidly developing agricultural area. News had also come out of the great silent North that rich discoveries of gold had been made in the Klondyke. Soon streams of adventurous men from the south and east were making their various ways to the new bonanza, and, while the main flow of humanity was through Seattle and Vancouver, there were many who undertook the overland route through Calgary to the great Peace River district, thence to Lake Teslin and on into the Yukon. Calgary's growth was phenomenal: bridges for the Bow and Elbow rivers were built, new hostelries were constructed, new residential subdivisions laid out.

The Hudson's Bay Company, which had been identified with Calgary from the time the present city was a police post, grew with the community. In 1891 the Company purchased all Alberta interests of I. G. Baker & Company. That same year it moved its merchandising business to more commodious quarters at 8th Avenue and Centre, and there in a well constructed stone building carried to the rapidly growing community the latest in merchandising methods and a diversified line of goods. At this location it carried on until 1913, two extensive enlargements being necessary during the period.

From the time of the completion of the Macleod and Edmonton railroads in the early nineties until 1911, the influx of people to Calgary was rapid. The census in that year showed 55,000. Schools, libraries, churches, hospitals, and homes had been built; a municipal railway or street car system had been developed. A gravity water system had been installed, and construction of a pipeline to carry natural gas from Bow Island in the extreme south of the province was started.

After 1911 growth continued at a fast but steady pace. The Company knew that the fur trading days in Calgary were over and that it must develop a departmental store to serve men and women engaged in agricultural and manufacturing pursuits, instead of trappers. In that year they started work on a new and

The Lieutenant-Governor takes the golden key from John Coles of the London Committee and opens the Calgary store, 1913. On left, nearest camera, is J. M. Baker, store manager. A. H. Doe holds the key box. H. E. Burbidge, Stores Commissioner, is to left of Lieutenant-Governor G. H. V. Bulyea. Mayor Sinnott stands with hat near face.





The present Calgary store of the Hudson's Bay Company, seen from 1st Street and 7th Avenue.

larger store at the corner of 7th Avenue and 1st Street West; the Canadian Pacific Railway launched construction of the Palliser Hotel; and the modern skyline of Calgary began to take form. Each of these two great companies, which had been a part of Calgary from the early days, visualized a great future for the city, and put those visions into two of the finest buildings in Western Canada.

In order that the people could witness the work of cattlemen on the range the first "stampede," under the sponsorship of leading ranchers, was put on in 1912. Cowboys from as far south as Mexico, practically all of the western range states, and each of the western provinces were present to ride, rope, and handle stock. The days of the open range, of large ranches were nearing an end; the ranching industry was changing. The Stampede has been perpetuated and has grown each year with the passing of time. It has become a great tourist attraction and a great holiday event for rural people from the foothills and prairies. About a quarter of a million people saw the Stampede events last year.

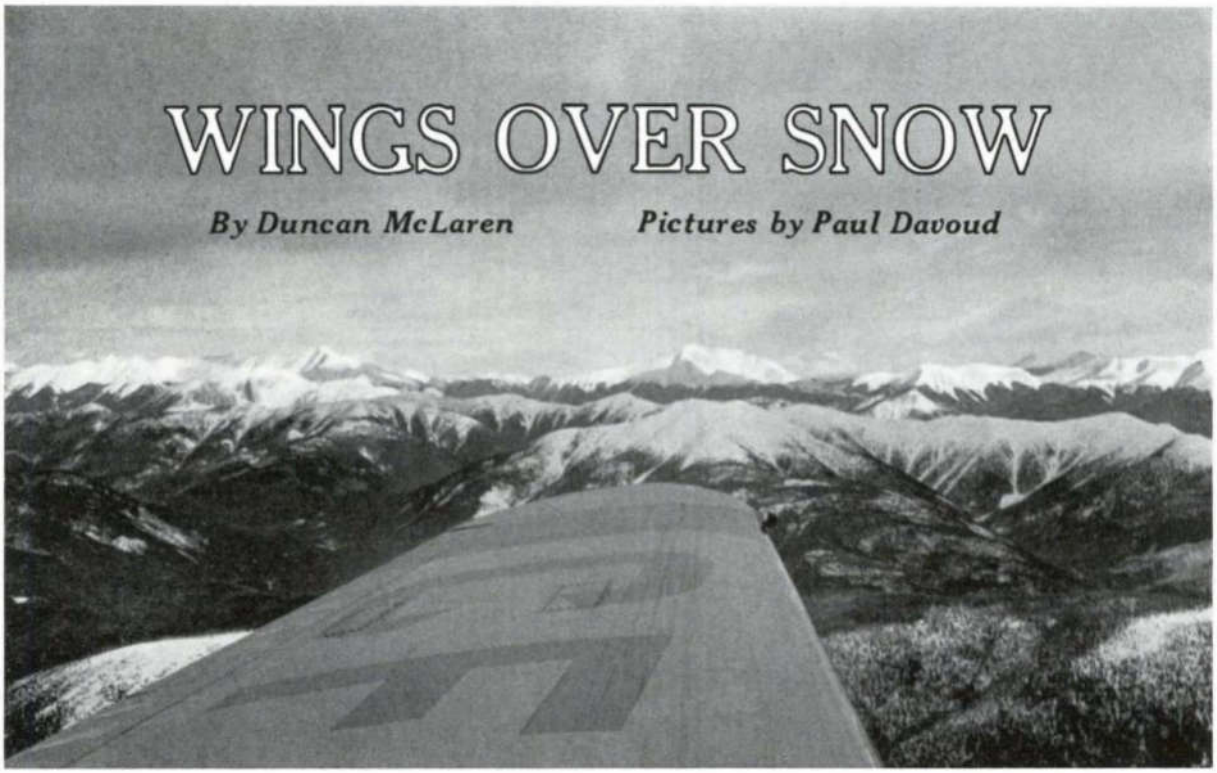
The Hudson's Bay Company completed its new home on 7th Avenue in 1913 and moved its business from the 8th Avenue and Centre Street location in the same year. In this store departmental methods of merchandising were used in Calgary for the first time. It was, in fact, the first of the great Company stores built on modern lines. On August 18, 1913, it was opened with much ceremony by the Lieutenant-Governor of Alberta.

Later the Company provided for growth by purchasing the Alexander Building on the corner of 8th Avenue and 1st Street West. In 1929 the Alexander corner was demolished and the new structure gradually took form. When it was completed the Hudson's Bay Company had spent two and one-half million dollars and possessed one of the finest department stores in Canada covering an area of seven acres of floor space. The store has a continuous frontage on 1st Street between 8th and 7th Avenues and of one hundred feet on each avenue. The outstanding feature of the building is the colonnade of polished granite columns and terra cotta archways gracing the 8th Avenue and 1st Street frontages of the store.

Today, "The Bay," as it is called by its thousands of patrons, is as vital a part of the community as it has always been during the past sixty-five years.

WINGS OVER SNOW

By Duncan McLaren *Pictures by Paul Davoud*



Mountains of the Coast Range between Dease Lake, B.C., and Whitehorse, seen from CF-BMI.

IN any season of the year, bush flying is a very different thing from airline or military flying. Both military and airline 'planes operate with the aid of radio signals, and can therefore navigate on instruments alone. But in the North there are no such facilities, and consequently contact flying—that is, flying within sight of the ground—is the only way to get around.

Even then, the bush pilot is handicapped by the fact that certain parts of the country have been mapped inaccurately or not at all. In such cases, he navigates by a compass (which is not always reliable, owing to local magnetic attractions), by his own knowledge of the country, by the position of the sun, by heights of land and direction of rivers, and in some cases by the shapes of the lakes resulting from the movement of ice across the continent in the distant past.

In some parts of the country it is still impossible to get a weather report previous to departure. Usually, in such circumstances, the pilot will not start out until the local weather is reasonably good. If bad weather is encountered en route and it is not practicable to return to the departure point or to land at any settlement, a forced landing is made. All bush aircraft are stocked with rations, tent, rifle, ammunition and stove for such an occasion, and, in most cases, quite a decent camp can be made.

Bad weather, of course, forces the bush flying aeroplane down near the ground. Low flying is impossible through mountainous or hilly country, and large lakes are difficult to cross in the winter time, since dull weather makes it extremely difficult to see the snow and judge distance. The pilot, therefore, watches his weather carefully, and when the ceiling and visibility lower to his limits, he retraces his course, or lands. It is not good policy to continue low flying when the weather en route is consistently closing in, so in most cases the pilot makes up his mind to return to his point of departure, or to some alternate point, or else land, before running against zero weather.

There is a period between fall and winter when the lakes freeze up and the thin ice makes both pontoons and skis impracticable. The air engineer then busies himself in adapting his machine to cold weather operations. In the case of the Company aeroplane, CF-BMI, extra winter cowlings are installed on each engine to maintain the proper engine temperatures. All exposed oil lines are lagged, that is, wrapped with asbestos tape, and engine controls are freed from oil and grease as much as possible.

As well as fitting skis to the 'plane at this time, all moving parts of the aircraft, such as flight controls and flaps, are checked for excess amounts of grease and all unnecessary lubrication is replaced with a lighter lubricant or removed completely.

While all this sounds fairly simple, in reality many hours of work are involved. Combine the above mentioned work with the ordinary running repairs, the possible removal of the engines from the aircraft for overhaul, and the many hours spent on detailed inspection of the 'plane, and one can easily see that the air engineer has plenty to do during the freeze-up period. These precautions are very necessary, since an aeroplane operating in the bush in winter has to sit outside in the coldest weather—sometimes in temperatures of 60° below and worse.

In the Arctic, winter flying presents even greater difficulties. Low-lying coastlines, absence of trees, and the frozen Arctic sea present a flat white surface with no shadows or landmarks of any sort. Snowdrifts as



BMI on skis in the Arctic.

hard as cement and four or five feet high, broken ice, and pressure ridges make landings impossible in many localities, and generally it is necessary to prepare runways before a skiplane can safely come down. Even then, the drifts in many cases average two or three feet in height. All this, of course, makes Arctic flying rather hazardous. But, BMI's fine performance last winter, when we flew seven thousand miles through northern British Columbia and the Arctic without a mishap, proved that it can be done with safety.

On this trip, we were helped greatly by radio messages sent out by the Company and Government stations, advising us of the weather that lay ahead of us, and acquainting us with landing conditions at the next post on our route.

Much has been written about the romance of bush flying, particularly in the winter time. But those who have written of it in this light have generally been passengers. It normally takes two hours of work in the morning to heat the engines, remove the covers and get ready for take-off; and another two hours is spent at the end of each day pumping gasoline and getting the aeroplane ready for the morning. As an example of the conditions met with in winter flying, here is a short description made up from the log of our recent flight in BMI through northern Manitoba and Saskatchewan:

We left Winnipeg at 10.25 on the morning of January 6, having been delayed an hour and a half by fog. The fog continued over Lake Winnipeg, and prevented us from getting to either Cedar Lake post or The Pas; so we landed on northeast Cedar Lake to await better visibility. After two hours, and a cold lunch, we took off for The Pas with the ceiling at three hundred feet, and landed there at half past three. We were held there all next day on account of fog and couldn't get away until 11.30 the following morning. Soon we reached Cedar Lake, and landed at the post at noon. After a three-hour stay, we got back to The Pas in mid-afternoon. Again we spent the night there, and next day left for Cumberland House, where we arrived after a twenty-five minute flight. It was overcast but the visibility was ten to twelve miles and the ceiling was three thousand feet.

At Cumberland House we stayed over night and left there at two o'clock the next day, taking with us Post Manager F. Reid. Fifteen minutes later we came down at Pine Bluff. We stayed there three-quarters of an hour and then flew to Channing, half an hour away. When we landed there it was snowing. We spent the night there and left at ten o'clock the next morning, January 11, taking along mail for South Reindeer and Lac Du Brochet. During the take-off we ripped one of the ski bottoms on the ice. We arrived at Pelican Narrows in twenty-five minutes. The dull day made the snow very difficult to see.

At Pelican Narrows we were held up on account of the weather, but got away on January 13 at nine o'clock. The flight to South Reindeer Lake post took thirty-five minutes, and we left there the same day for Lac Du Brochet, an hour away. On this day we hit some pretty cold weather. It was 48° below zero at South Reindeer but only 40° below at Du Brochet.

Flying north on Reindeer Lake, we saw a few hundred caribou on the ice. We saw more of them, or per-



Fall freeze-up at Fort McMurray. A Canadian Airways plane seen between the pontoon struts of BMI. (Photo H. M. Park.)



Transport, ancient and modern, near Cambridge Bay, Central Arctic.

haps the same ones the next day when we attempted to fly to Stanley. The weather closed down about one hundred and fifteen miles south of Du Brochet, and we had to return. It was 52° below at Du Brochet that morning.

Next day we had more luck, and hit Stanley about noon, bucking strong headwinds on the way and seeing more caribou. It took us only twenty minutes to fly the next day from Stanley to Lac la Ronge. On the following day, January 17, we flew against strong headwinds to Green Lake. On the 18th we made a half-hour trip to Beauval, where we spent the night, and in the morning flew back up to Isle a la Crosse. On this trip the dull light again made it difficult to see the snow.

The next day we took in three more posts—Buffalo Narrows, Buffalo River, and Clear Lake. Landing at the first was difficult owing to tractor ruts and holes in the ice made for fishing. At Clear Lake, where we arrived at 2.30, the weather was closing in with snow squalls. We stayed there all night, leaving for Pine River in the morning, and at three o'clock in the afternoon came down at Isle a la Crosse again. From there, the next day, we took a hop over to Montreal Lake, where we were again grounded by bad weather.

Leaving Montreal Lake on the 24th, we arrived at Prince Albert at 9.30 in the morning. This was our coldest day—the temperature at Meridian Cabin in the bush was 55° below, although the post thermometer showed 43°. On arrival at Prince Albert it was estimated that the Montreal Lake temperature was at least 60° below. These low temperatures gave us trouble with the engine controls. Fifteen minutes out of Montreal Lake, the temperature inside the plane was still 20° below, and coming down to Prince Albert the throttle on one of the engines froze in the idling position during the descent. We therefore had to make a single engine landing. The Prince Albert temperature was 46° below.

Bad weather there forced us to spend the next day on the ground, but we got away before nine o'clock the following morning, and headed for Winnipeg. The weather reports indicated clear weather all the way, but about one hundred and eighty miles east of Prince Albert we ran into a cold front and encountered low weather. We, therefore, turned northeast and flew along the edge of the front. An attempt to cross Lake Winnipeg and get into Berens River was frustrated. We were forced back and landed at Norway House at noon. Next morning we got away to an early start, arrived at Fort Alexander (at the other end of the lake) in an hour and a half, and after spending three hours there we got back to Winnipeg on January 27 at two o'clock.

BMI beside an Eskimo tent of Caribou skin, Bathurst Inlet.



Hudson's Bay Company.
INCORPORATED 2ND MAY 1670

FLIGHT RECORD

DATE Jan 26/41

CREW Buchan

RAFT K M I

OT McLaren

	1	2	3	4	5	6	7
O. PASS. AND CREW	3						
WT. PILOT	160						
WT. PASS. AND CREW	500						
~~Baggage~~ WT. EXPRESS	180						
OPERATING LOAD	2290						
TOTAL LOAD	2326						
FROM	Prince Albert						
TO	Norway House						
DISTANCE	450						
TIME IN AIR	3.00						



WEATHER: 200' — 1,000' min 2-6 miles Occas. zero zero in spots

Total Air Time 3.10

Total Ground Time .05

Total Engine Time 3.05

Gasoline		Oil		Taken at	Date
Gals.	Grade	Gals.	Grade		
66	80 oct	—	—	Norway H.	26

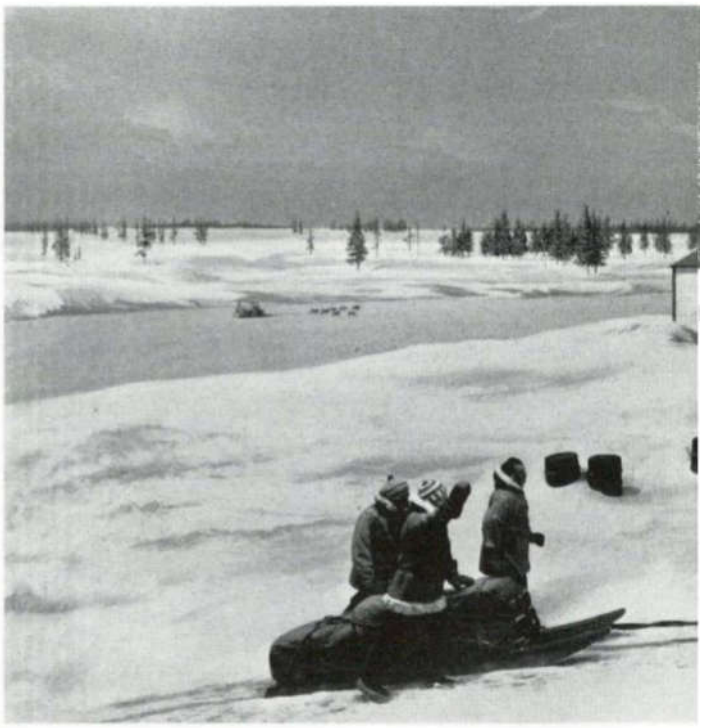
REMARKS: Joined NE. by Cold front moving pa... N. W. Landed Norway House 2 a.m. Left visibi...

Dept.	From	To	Charge
	Prince Albert	Norway House	Sask Air...



Above: Covered up for the night at Whitehorse, Yukon. Left: Merry natives visit the big bird at Reid Island.

From ENGLAND



LIKE the rest of London, the members of the Company staff over there are carrying on their daily business with coolness and courage in the face of constant danger. Here are some extracts from the more recent reports of the London Buying Office manager:

15th November, 1940.

"We do not take cover now unless planes are directly overhead when the alarm is given to us by spotters on the roof. I think perhaps the most trying time is at night in one's own home when the warning goes just about when the evening meal is due. Then it is wise to make for the shelter in the garden without much delay and complete the meal there.

"It is dangerous to return to the house, and as the planes are busy all night, the usual thing is to climb into the bunks in the shelter and try and get what rest one can. But the noise of the anti-aircraft guns often makes this impossible. With the approach of the colder weather, the prospect is not alluring—however, all civilians are now in the front line and the spirit of the people is truly amazing as they are practically facing death nightly."

16th Dec., 1940.

"It is evening and the German 'planes are zooming overhead and the A.A. guns have been let loose, but to a seasoned Londoner, like myself, it does not now make my pulse beat any faster. Some of the other towns in England have had a severe bombing and considerable damage has been done, but the damage and loss of life was mostly in the centres of towns and not in the industrial areas. London, of course, gets continual attention, and last week we had an incendiary bomb on the front step of Beaver House and another penetrated the roof. But no damage was done. It got so hot in my home town in Beckenham that I was forced to send my family into the country for a month, but they are now back again. Five of the office staff spent the night in the office shelter last night, and we were able to get quite a lot of work done. In the morning we emerged from the building, in the early dark hours, in search of breakfast at a city cafe and were successful in obtaining a sausage, toast and tea. Marmalade, bacon and butter are scarce but we fared quite well—hardy blokes are we!"

21st January, 1941.

"London has been in the front line of this battle and has been gravely wounded. Paris is intact, but under the Nazi heel, and I can tell you we would rather have our historic buildings and our architectural masterpieces levelled to the ground, than undergo the humiliation, the hardships, and the base indignities which the gallant French have to bear and, worst of all, the loss of their freedom."

Captain Maurice Wonnall, a member of the technical staff of Beaver House, whose experiences at Dunkirk were described in the September *Beaver*, writes from "Hell's Corner":

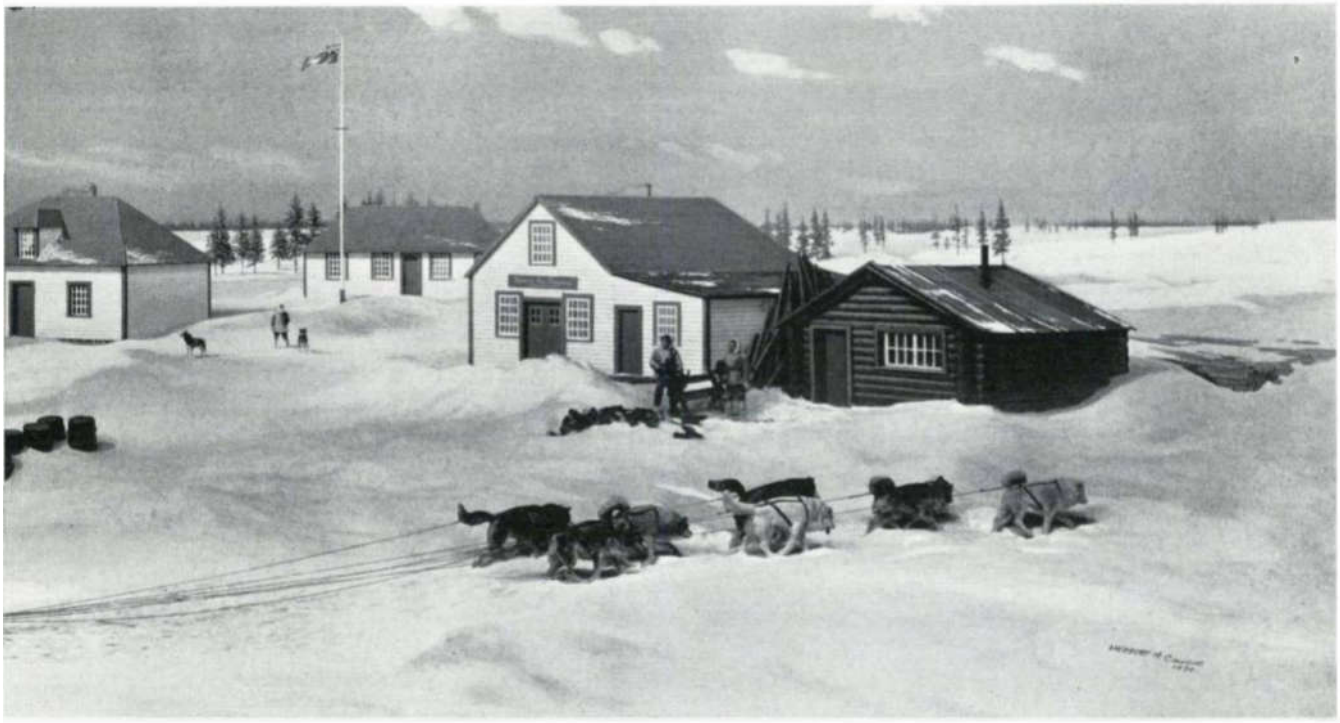
"As a member of the Company's staff who has been on active service since the outbreak of war, I should like to say how pleased I have been to receive *The Beaver* in Belgium, France and now here in England. I was prompted to write this letter by the thought that you in Canada might like to know how much enjoyment one copy of our magazine gives in this part of the world.

"To us on the coast here, only a few miles away from the Boche, the arrival of the post is the most important event of the day, and to receive *The Beaver* is always a pleasant surprise. It helps one retain a link with the days of peace and makes one realize just what we are fighting for. Its pictures and its articles cheer us up (not that we need it!) to think that the Company is still carrying on in Canada as always.

"After I have read it, the magazine is passed on to my men, and I think I can claim that this one copy is probably read by well over eighty people, although they have no connection at all with the Company."

London Office reports on January 3:

We are glad to record that, owing to adverse weather conditions, we have had a few nights during the last few weeks free from air raids, which has afforded an opportunity for much needed sleep. Following a lull in the raids during Christmastide, they were renewed with increased intensity on the night of Sunday, 29th December, when the City of London experienced its most severe damage. We are glad to be able to state, however, that Hudson's Bay House escaped any damage, and that that suffered by Beaver House was comparatively negligible, due to the splendid work of our fire patrol, under the direction of Mr. Marshall, and a few additional members of the staff who were sleeping on the premises. A large warehouse, containing stocks of inflammable goods, which actually adjoins Beaver House received a direct hit and, there being no patrol or watchers on the premises, was soon



Model of a Hudson's Bay post, on view in the Imperial Institute, London. Partly modelled and partly painted, it is the work of Herbert H. Cawood.

a blazing mass and was completely gutted. Although we have a fire brigade station opposite Beaver House, the whole of the personnel and engines were already engaged with other fires, and the brigade which eventually arrived had to come from a distance of about seven miles from Woodford. In the meantime our patrol were strenuously engaged in fighting the flames to prevent them spreading to our premises and it was due to their efforts that the damage was comparatively small and confined to one or two sections near the roof.

As a measure of economy and to more efficiently co-ordinate the work of the remaining staffs whose members have been depleted for the benefit of war services, the Company's head office at Hudson's Bay House has been closed and the staff, furniture, etc., transferred to Beaver House on November 27, 1940.

The women on the staff have been tremendously encouraged by the personal messages which they have received from the women of the Canadian Committee office.

Our thanks are due to Miss Rivers and her friends who have so kindly knitted socks, gloves and pullovers for members of the London staff who are serving with the forces.

We take this opportunity of expressing our appreciation and warm thanks for the clever and amusing "Christmas Card" addressed to the president of our Beaver Club, conveying the good wishes of all Beaver Clubs in Canada, which we cordially reciprocate. The "Christmas Card," which is quite a work of art, has not only been shown to all members of the staff but was also considered worthy of display in the London Fur Club, where it created great interest.

We have recently sent copies of the Company's 1941 Calendar to all canteens and offices of the Canadian units and the Canadian Y.M.C.A. on this side, and they have been much appreciated.

We have been happy to welcome to Beaver House the following members of our Canadian staff who are on this side serving with Canadian units: Major J. B. Morison, E.D., of the Winnipeg Land Department, serving with the No. 1 Canadian General Holding Unit; Mr. F. R. Hynes, post manager in the Ungava district, and now with the Canadian Air Force; and Sapper S. G. Holmes, of the Winnipeg Retail Stores engineering staff, serving with First Corps Field Park Company of the Royal Canadian Engineers.

The following members of the staff have been called up for National Service since our last *Beaver* notes were written:*

Name	Unit	Rank
Barker, W. T.	War Reserve Police	Constable
Bartlett, J. E. H.	R.N.	O.D.
Davis, H. H.	R.A.F.	A.C.2
Flyn, J.	R.A.F.	A.C.2
Folke, C. H.	R.A.F.	A.C.2
Warren, Miss M. E. R.	W.R.N.S.	Probationer
Godding, D. L.	R.A.S.C.	Private
Glass, J. A.	R.A.F.	A.C.2
Hooper, E. J.	R.A.F.	A.C.2
Price, C. G.	Queen's Bays R.A.C.	Trooper
Revell, A. A.	R.A.	Gunner

The following members of the London staff have qualified for the award of Long Service Medals or Bars and were presented therewith by the Governor at the meeting of the Board on the 15th January, 1941:

Mr. F. Witterigde, Sr.	40 years	Second Gold Bar
Mr. F. A. Cracknell	35 years	First Gold Bar
Mr. N. E. Beynes	25 years	Second Silver Bar
Mr. V. W. Elphick	20 years	First Silver Bar
Miss A. Lee	20 years	First Silver Bar
Mr. E. A. Pettman	15 years	Silver Medal

*A despatch from London of Feb. 4 states that Elwyn Ingrams, manager of the London fur department, has obtained a commission in the R.A.F. and reported for duty.

NEWS from the NORTH

James Bay District

The Indians throughout the district are becoming quite prosperous. Furs are fairly plentiful and country food is on the increase. Many of the natives from English River, Pagwa River and Fort Hope have been employed all winter in the pulpwood camps in the vicinity of Long Lac and Hornepayne.

P. R. Hughes from Pagwa River and R. Jeffrey from Summer Beaver were in Winnipeg for three weeks attending a special training course.

Dr. Harrison Lewis, chief federal migratory bird officer for Ontario and Quebec, recently visited several points on the east coast of James Bay.

The building of a highway from Geraldton via Long Lac to Hearst is expected to get underway in the spring.

Feeling very fit after his military training R. Pattie has returned to duty at Minaki post.

John Blackhall from Fort George post, who has been on sick leave since September, is looking forward to his return North some time in February.

E. Donovan from the Western Arctic district is assisting temporarily at Minaki.

Constable Dexter is the new officer in charge of the R.C.M. Police detachment at Moose Factory. He succeeded Constable Kupkee who was transferred to Ottawa.

It is with deep regret we record the death of Dr. W. L. Tyrer at Toronto in December. Dr. Tyrer for the past ten years was medical officer and administrator for the Department of Indian Affairs in the James Bay district, and his sudden passing was a shock to his wide circle of friends in the North.

Saskatchewan District

A serious epidemic of influenza broke out in January at Poplar river and Black River Indian Reservations, resulting in eight deaths. None of the 250 people living there had strength enough to make the seventy-mile journey to Berens River, where the radio station could have summoned aid, and Post Manager C. A. A. Nelson and Rev. Harry Meadows, with their wives, had to fight the epidemic alone. Finally two of the Indians recovered sufficiently to take the news to Berens River. From there a call for help was radioed to Winnipeg, and a doctor and two nurses were rushed to the post by plane.

There was also an epidemic of diphtheria at Norway House, the Indian residential school there having been placed under quarantine.

Arthur Walbridge North, F.R.G.S., of Walton, N.Y., a renowned traveller in all parts of the world, was a visitor at Pelican Narrows post in December. He was surprised to be able to renew the acquaintance of Post Manager Harkes, whom he had met some years ago at York Factory.

A disastrous fire gutted the United Church mission residence at Norway House in December. Practically the entire contents were destroyed, and the missionaries were fortunate in escaping from the building.

R. R. Graham of the Fur Trade Department visited Berens River, Norway House, Rossville and God's Lake posts in December and inspected the posts in the western sector of the district in January. The latter trip was made in the Company's Beechcraft BMI. W. J. Cobb, late of Labrador district, accompanied Mr. Graham in January.

We deeply regret to record the death, from pneumonia on December 27, of Mrs. Annie Collins, wife of Post Manager G. C. M. Collins of Island Lake post. Mrs. Collins was well known in the North, having accompanied her husband to Island Lake, Norway House and Fort Simpson.

We are pleased to report that District Manager R. A. Talbot has returned to duty, having made a good recovery from his recent serious illness.

Cross Lake and Deer Lake posts now have radio communication with Winnipeg, the sets being operated by Post Managers Chalmers and Lowrie respectively.

George McLeod returned to Winnipeg on Christmas Eve from Rossville, having completed the new building at that point.

E. W. Hampton is at present relieving at Cedar Lake, where W. Gowans is unable to carry on owing to illness.

Mackenzie-Athabasca District and M.R.T.

Another link with the past was severed on February 3 by the death of Colin Fraser of Fort Chipewyan at the age of 91. The son of Colin Fraser, famed piper to Sir George Simpson, and a Cree Indian woman, he was born at Jasper House, and served the Company in many ways, chiefly as a dog driver. Later he left the service and became a free trader at "Chip"; but he proudly wore a Company medal—as shown by Miss Shackleton's sketch of him in the December 1937 *Beaver*. His most prized possession was a pair of his father's bagpipes, with which Sir George was piped across the country on his famous voyage of 1828.

The first building ever erected in the Northwest Territories for use as a public school was opened at Fort Smith in December, and named after Post Manager H. A. MacDonald, who was largely responsible for the undertaking. It is a log building, 28 by 22 feet, and was built entirely by public subscription and voluntary labour, contributed by the community as a whole.

The lot on which the school stands was leased from the Company at a nominal rental, while the Mackenzie River Transport donated lumber and free haulage. Douglas Wilson and Dean Moir, clerks at Fort Smith, gave their services, while an old Indian, Niaulti Beaulieu, who put up the logs for the building, observed that he didn't care whether he was paid or not!

At the opening ceremony, K. Conibear, secretary-treasurer of the school board, pointed out that the first school ever operated in the N.W.T. was probably that for seamen on H.M.S. *Hecla* and *Griper*, when those vessels were frozen in for the winter off Melville Island, 1819-20.

W. D. H. Frechette has joined the Royal Canadian Ordnance Corps, in which he is now qualifying for a commission.

From time to time employees long out of the service drop into the office in khaki uniform. John McBride was one of the latest, followed by Maurice Gates, on his way to join the Air Force.

The new store at Waterways opened in November under the management of C. H. J. Winter, who is assisted by Tommy Fraser.

The response of our employees to the call to purchase War Savings Certificates has been gratifying. A considerable amount is being bought by them monthly, but we are anxious to obtain even more still. If the name of any of our northern staff is not yet on our list, send us the necessary authority and we will do the rest.

The Indians are doing their share too. Some of them came to Fort McPherson and asked Post Manager A. S. Dewdney how they could help King George beat Hitler. He explained to them about War Savings Certificates, and Chief John Kay and Edward Snowshoe then spread the news among the other members of their band. The response was enthusiastic. One widow with several children invested twelve dollars of her carefully guarded savings. The real rush to invest is expected in the spring, when the muskrat catch comes in.

The old adage, "The proof of the pudding is in the eating," is true, but in this case substitute "heating" and you have the feeling of those of our staff who are fortunate enough to be living in one of John Watson's new houses this winter. They tell us they no longer feel the wintry blasts.

We had a pleasant and helpful visit from R. H. Chesshire in December. He felt quite at home in the old office, but we would like to have welcomed him in our new abode. It is located above the office we used to occupy on 103rd Street in the retail store annex.

During Mr. Chesshire's visit, he presented J. G. Woolison with his gold medal in recognition of thirty years' faithful service with the Company.

We are very interested in the construction of a new steel barge, on which the Standard Iron Works of Edmonton are engaged at the present time. This barge is to be used as a refrigeration unit by the M.R.T. The need and demand for refrigeration service in the North is growing, and this will be an important addition to our fleet.

Last summer an increased number of tourists from the United States took advantage of our Northern trips, and we hope from the many inquiries received to have even more passengers of this type next season.

We regret to record the death of George Scott West, in the hospital at Isle a la Crosse, after a brief illness. George had only just been transferred to Portage la

Loche as manager. He was born at MacDuff, Banffshire, in 1905, and joined the Company as an apprentice in 1928. The first five years of his service were spent with the Transport Department. Then, after a furlough in Scotland, he was employed for two years in Mackenzie-Athabasca district office. After gaining experience at Fort Smith, he was successively manager at Nelson Forks and Fort Dease posts. He was married to Frances Marion Smith only last November.

Nelson River District

The fall migration of caribou extended farther south than usual, with the result that they are very plentiful throughout northern Manitoba. During the early part of the trapping season, they were numerous enough to interfere at many points with trapping activities. As rabbits and ptarmigan have also been comparatively plentiful this year, the Indians in the area have been able to put in a very comfortable winter.

After several years of freedom from epidemics amongst the sled dogs in the North, Nelson House has been hard hit this winter, and a large number of dogs died as a result of the recurrence of a disease which has, in past years, played havoc with work dogs. At the time of writing, the outbreak appears to be tapering off, so it is hoped that it will not spread through other sections of the country.

Mr. and Mrs. T. H. Manning, after spending several years on an exploratory trip through west Baffinland and the east side of Melville Peninsula, reached Churchill by dog team on January 18. After an adventurous trip in their motor boat from Igloolik last fall, they were "frozen in" at Cape Fullerton. The balance of the trip from Fullerton to Churchill was made by dog team.

Congratulations are due J. A. Trafford of Nueltin Lake post as winner of the DX contest sponsored by the Radio Division. During the contest contact was made with forty-three Company stations, exclusive of mobile units.

During December District Manager W. E. Brown visited the northern Ontario posts of the district, and in January the northern Manitoba section, during which time Wabowden, Gillam, Churchill, Pukatawagan, South Indian Lake, Nelson House, Split Lake, York Factory and Shamattawa posts were visited.

St. Lawrence District

During the month of November fairly extensive alterations were made to 100 McGill St. for the purpose of accommodating the new Fur Sales Department. This department, in addition to handling furs on consignment from outside shippers, is also providing an outlet for the sales of certain varieties of post furs, for which there is a market in Montreal.

In the alterations to our building, provision was also made for the increased stock of merchandise which is now being carried by the Montreal Depot. The depot here, in following the lead of the Winnipeg one, is becoming more streamlined every day.

Pensioners F. C. Gaudet and T. A. Sinclair paid us a visit on Christmas Eve, as usual, but unfortunately Pensioner W. E. Swaffield was unable to make his customary call on that day, having been advised by his doctor to remain indoors, owing to a recent heart attack. He is now somewhat improved, but has not yet been able to visit us.

The staffs at our posts report having heard the Christmas radio message from the General Manager.

Quebec Airways 'plane left Seven Islands for Nitchequon on January 9, returning next day with furs and mail from the post. Arrangements have been made for a 'plane trip to Nitchequon early in February to take in trade supplies required for the balance of Outfit 271.

We understand that, owing to war demands, the Quebec Airways Limited are having difficulty finding sufficient planes to meet the demand for trips in the vicinity of Bersimis and Seven Islands.

Fur buyers have been quite active on the coast this season and competition has been very keen, particularly in mink.

On January 16 our Mistassinny manager, George Dunn, made a successful 'plane trip to Neoskweskau and Miskittenau camp trades.

Congratulations to H. B. Frankland, manager at Pointe Bleue, and to R. Jarnet, clerk at Seven Islands, on having been awarded first and third prizes respectively in the "Dealing with Natives" Competition.

Having completed his thirty days' military training at Valcartier, P.Q., Apprentice L. R. Pattee returned to duty at Pointe Bleue at the end of December feeling fit again, although the greater part of his time at camp was spent in hospital with influenza.

H. R. Cummings, formerly acting manager at Grand Lac, offered his services to the R.C.A.F., but was greatly disappointed to find that through some slight defect he was unable to pass the stringent medical examination.

During November and December our "Line" posts were visited by A. M. Jones of Winnipeg office, who gave them advice and instructions in the grading and buying of furs. Roberval R.F.D. was also included in Mr. Jones' itinerary, at which point he met District Manager George Watson. The latter was at that time on inspection visit to Pointe Bleue post and the Roberval Raw Fur Department.

Recent visitors to the office included the General Manager; R. H. Chesshire, assistant manager, Fur Trade Department; Ralph Parsons, former Fur Trade Commissioner; Honourable R. B. Job of St. John's, Newfoundland; H. P. Warne, supervisor Raw Fur Departments; F. L. Heyes, technical superintendent of London Fur Warehouse, en route to New York; S. H. Murley, President Lampson, Fraser & Huth, Inc.; S. H. Parsons, Labrador district manager; and Max G. Hamilton. Messrs. A. Copland, R. C. Gillard, C. W. Cave, A. R. Scott and G. Webster have been spending some time with us at 100 McGill Street in connection with districts' fur shipments.

Ungava District

The wedding of Miss F. L. Giles, late matron of St. Luke's Hospital, Pangnirtung, to Post Manager S. J. Stewart took place at St. John's Church, West Toronto, on January 11. The bride was attended by Mrs. R. McKibbin, matron of honour, and the Misses Thompson and Elliott, bridesmaids. An old friend of the bridegroom, L. A. Learmonth, acted as groomsman, and the bride was given in marriage by her father. Other H B C guests for the ceremony included L. A. Graham and Alex Smith, and also Mr. and Mrs. A. R. Scott, who came up from Montreal for the occasion. Mr. and Mrs. Stewart left by rail for Halifax to start on a honeymoon trip to the West Indies.

Visitors to Hudson's Bay House, Winnipeg, during the quarter include S. J. Stewart, Alex Smith, A. R. Scott, Gordon Webster and Chesley Russell. The latter spent a short time in the Raw Fur Department at Prince Albert before returning to Hudson's Bay House for a short refresher course. I. C. M. Smith has joined the R.C.N.V.R., while Alex Stevenson has enlisted in the R.C.A.F.

S. G. Ford retired on pension at the conclusion of the Eastern Arctic voyage and has now taken up residence at Bay Roberts, Newfoundland. Post Manager Ford has had a long and useful service in the Fur Trade Department, having commenced his career at George's River, Ungava Bay, in the year 1905. He was for many years in charge of Southampton Island post and was also post manager at Coat's Island and Clyde, retiring from the latter post in September, 1940.

On December 23 we had a visit from Flight Sergeant Bruce Campbell, formerly of this district, and who is now a Pilot Officer in the R.C.A.F. He was on his way through to Rivers, Manitoba, for the final phase of his training before going overseas.

Post Manager James Bell reports an Arctic "tragedy" from Lake Harbour. "Annogak and Akavak were cleaning out the blubber shed, clearing the flensing table and emptying seal oil residue from barrels. While emptying one of the large puncheons they hauled up Koochiajuke's long lost lead dog, complete with harness. This dog was lost some two months ago and must have stolen into the blubber shed unknown to the natives, and while trying to reach into the puncheon for something to eat, must have slipped in and sunk into the oil residue. Presumably he had his fill and thus the mystery is solved to the great amusement of the Eskimos."

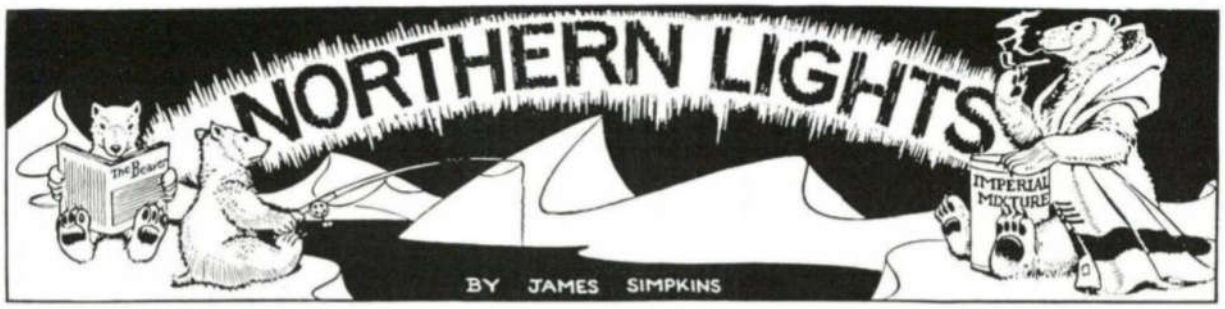
Labrador District

The M.S. *Fort Garry* is now undergoing extensive alterations and repairs at Munroe, Trinity Bay. The work is being done in the ship building yard of Captain Harry Stone, who recently completed the building of four vessels for the Newfoundland Government at Marystown.

District Manager S. H. Parsons left St. John's for Winnipeg on January 1 accompanied by C. W. Cave and C. Russell.

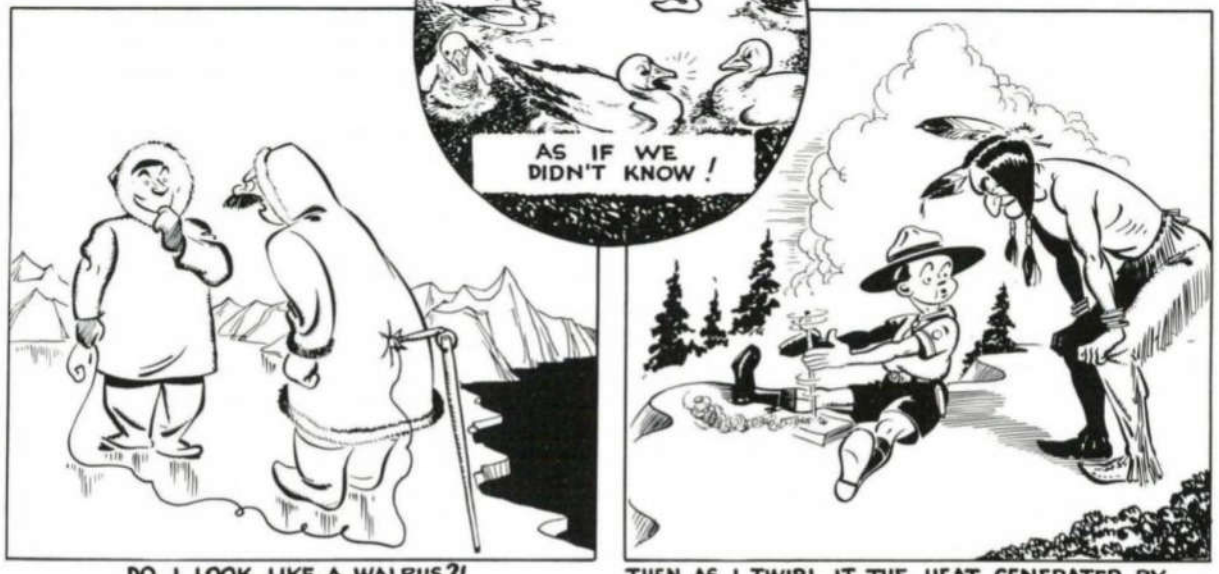
We were glad to see Lee White of North West River, Labrador, at district office late in January. He has been accepted for the R.A.F. He proceeded to Canada for training on January 28.

Job Brothers & Company Limited will have only one vessel, the S.S. *Neptune*, prosecuting the seal hunt this spring, and Bowring Brothers Limited three ships. All four are wooden vessels. The *Neptune* has been sailing to the icefields continuously since 1873 with the exception of one season only. Bowrings' *Ranger* however has a slightly longer record, having made her first voyage in 1872 and missed one season only.



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PLEASE MAY I BORROW YOUR BOW AND ARROW FOR A MINUTE?
ROSS GOOSE BREEDING GROUNDS
AS IF WE DIDN'T KNOW!
HEY! THATS NOT THE WAY PAUL MUNI DID IT.





According to a report from Ranger Bragg at Hopedale, the skeleton discovered by Indians about a hundred miles from Voisey's Bay has been identified as that of Frederick Connell, a member of the Koehler party which was taken into Fort Chimo in the summer of 1931 by the Hudson's Bay Company's M.V. *Fort James*. From Fort Chimo they attempted to cross the land to the Labrador coast and were last seen alive by Indians in the same fall. Koehler's body was found in 1932 by Indians, who reported the finding to the manager at Davis Inlet post. It was later brought out of the interior and buried at Hopedale. George Martin of Cartwright, the third member of the party, has never been located.

Western Arctic District

All members of the Western Arctic staff join in congratulating Angus Gavin, manager of Perry River post, on his important discovery of the nesting grounds of Ross's Goose. As a memento of his achievement, Mr. Gavin was presented by the Company with a beautifully engraved silver cigarette box.

The seven Company short-wave radio stations now established in the district have been functioning very satisfactorily, being in regular communication with the Government Station at Coppermine throughout the winter.

Chief Trader L. A. Learmonth, who retired from the Company's service last spring after nearly thirty years' service in the Arctic districts, has returned by air recently to the Western Arctic to engage in scientific work on behalf of the Royal Ontario Museum.

We regret to record the sudden death of the wife of Stephen Angulalik of Perry River. Angulalik, who owns and operates a trading post at Perry River, is an outstanding figure in Eskimo life on the coast, a distinction which his wife in her own sphere shared with him. His picture appeared on the cover of the March, 1940 *Beaver*.

Those indefatigable Arctic travellers, Mr. and Mrs. Lincoln Washburn of Yale University have spent a busy winter on the coast engaged in scientific pursuits. Following a reconnaissance by air over Victoria Island last summer, they pretty thoroughly covered the area between Coronation Gulf and King William Land by schooner and dog team during the fall and winter months. On their recent departure for civilization by air from Coppermine, they left behind them a host of friends and well-wishers, both white and Eskimo.

Visitors during the winter to Reid Island, off the Victoria Land coast, were delighted to find baby Patricia Ross, a thriving and charming little lady who takes a keen interest in everything that goes on. "Patty" is the daughter of Post Manager and Mrs. Ray Ross, and she flew north from Edmonton with her mother last September when only eleven days old.

Coppermine residents had the pleasure of welcoming to the community Mrs. Maclean and her little daughter Donna, shortly before Christmas. Mrs. Maclean travelled by air from Edmonton to join her husband, Mr. W. Maclean, officer in charge of the Government wireless station.

The very best wishes of their many friends in the district go with Art Figures, late of Maitland Point post, and W. Smith, late of Holman Island post, who are now serving with the Royal Canadian Air Force and the Royal Canadian Signals respectively.

William Gibson visited district office, Edmonton, and Head Office, Winnipeg, in January, travelling from Coppermine by Mackenzie Air Service and Trans-Canada Airways. He returned by air early in February to undertake inspections as far eastward as King William Land.

It was with deep regret that we learned of the death of Major L. T. Burwash since publication of the last issue of *The Beaver*. Major Burwash was well known and highly respected in the Western Arctic, where he carried out on different occasions important exploration and investigation for the Canadian Government.

Winnipeg Office News

The *Nascopie* has been laid up during the winter at an eastern Canadian port. Chief Engineer Thomas, Third Officer Dillon and Chief Steward Reed are standing by her, while Captain Smellie has been wintering at his home in Winnipeg.

CF-BMI, with Dune McLaren and Jerry Buchan at the controls, has had a busy winter to date. In January they took R. R. Graham, accompanied by W. J. Cobb, to western posts of the Saskatchewan district. In February, the same party, with the addition of W. E. Brown, visited Fort Alexander, Cat Lake, Big Beaver House, Trout Lake, Fort Severn, Bearskin Lake, Deer Lake, Poplar Hill, Pekangekum, Little Grand Rapids, Island Lake, God's Lake, Oxford House, Cross Lake, Norway House, Rossville, Poplar River, Berens River. This time the trip was not devoid of incident. A forced landing, due to bad weather, resulted in the boys camping out on an unknown lake, since christened "Brown's Lake." No one was the worse for this.

This month BMI is scheduled to visit posts in James Bay district on Hudson and James Bays and interior posts of St. Lawrence district.

District Managers S. H. Parsons and George Watson were visitors to Hudson's Bay House in January and February, for the purpose of discussing the affairs of their districts.

William Gibson flew out of the Western Arctic district to visit Winnipeg in February. He was outside altogether little more than a week, and then returned by air to Coppermine. Before the break-up he intends to travel to King William Land and return with dogs.

Our old friend, L. A. Learmonth, was a visitor to Winnipeg in February on his way back to the Western Arctic for a busman's holiday. He is exploring and collecting for the Royal Ontario Museum. He returned to Western Arctic with William Gibson.

Another class has graduated from the Winnipeg Training School, and twelve new additions to the staff have now started work at points as widely separated as Pointe Bleue in Quebec and Vancouver. Brunet and Stones have been appointed to the Raw Fur Department, and Shuler, Parsons, Inkster, Lee, Bryan, Murphy, Preston, McLachlan, Sanburn, and Lacoste to the post organization.

W. O. Douglas attended a convention of fur farmers in Chicago in February.

Conservation activities continue very much to the fore. D. E. Denmark has visited the Cumberland House marsh each month. L. Butler visited Toronto and Prince Edward Island on biological business, and is also visiting United States Government farms in New York and Wisconsin. J. S. C. Watt reports everything in good order at Rupert's House, and William Blowey is still going strong at Steeprock.

J. W. Henley spent a month at the Vancouver store. S. G. L. Horner also visited Vancouver for the purpose of checking the radio installation on the *Fort Ross*.

British Columbia District

We understand that Pacific Alaska Airways, Inc., subsidiary of the Pan American Airways system, are establishing an alternative route to the coast which will go inland via Prince George and the Finlay River valley, and thence through by way of Dease Lake to Alaska. Radio and beam stations are proposed for Fort Grahame and Dease Lake.

It is expected that considerable work will be done on the existing air fields at Fort Nelson and Watson Lake this summer, and preparations are already under way for freighting in the necessary materials which we hear will amount to around eight hundred tons in each case. It looks as if the old pontoons and skis are going to be secondary to wheels, in future flying in northern British Columbia and the Yukon.

D. G. Bullock, assistant at Hazelton post, spent December in military training at Vernon, B.C. G. P. Simpson, assistant at Port Simpson post, spent January at Victoria, B.C., also in military training. One or two other single assistants of military age are expecting to be called for training at any time.

W. P. Johnston, manager of Fort St. James post, paid a hurried visit to Edmonton in January to see an eye specialist, and returned to his post with a brand new pair of "specs." He feels he will really be able to go to town on the fur around Fort St. James now.

On December 27 we moved into our new offices, located in the buildings we previously occupied before taking up residence in the Birks Building. The new address is 10129 103rd Street.

Amongst the visitors to district office since the last issue of *The Beaver* were R. H. Chesshire, Assistant Manager Fur Trade Department; H. E. Cooper, merchandise manager; W. G. Crisp, post manager at Telegraph Creek; A. D. Mackintosh, former post manager now residing in Vancouver; and R. G. Gillard, late of Fort Liard, N.W.T.

Mr. and Mrs. Crisp have been out on furlough since last fall, and will be returning to Telegraph Creek early in February. R. G. Gillard broke his furlough to spend a month in Winnipeg taking a refresher course.

The district manager left Edmonton on November 4 on an inspection trip which took in Fort St. James, Hazelton, Kitwanga and Port Simpson, and he expects to make an extended trip by air in the near future, taking in all the northern posts.

STAFF CHANGES

BRITISH COLUMBIA DISTRICT

Name	From	To
R. S. Cunningham	Clerk, Whitehorse	Mgr., Frances Lake Outpost
R. G. Gillard	Manager, Fort Liard	Furlough
W. G. Crisp	Manager, Telegraph Creek	Furlough
G. I. Jamieson	New Employee	Clerk, Fort Nelson
R. Laurence	New Employee	Clerk, Fort St. James
L. A. O'Morrow	New Employee	Clerk, Hazelton
J. P. Kirk	Clerk, Stewart River	Clerk, Whitehorse
S. H. Senkpiel	Clerk, Hazelton	Clerk, Port Simpson

MACKENZIE-ATHABASCA DISTRICT

R. E. Howell	Winnipeg	Mgr. Portage la Loche (temp.)
J. K. Kerr	Clerk, Portage la Loche	Clerk, Yellowknife
W. D. H. Frechette	Clerk, Yellowknife	Active Service, R.C.O.C.
E. Chobotuk	New Employee	Steno. District Office
W. F. Rannie	Winnipeg	Clerk, Yellowknife
E. H. Martin	New Employee	Clerk, Gold Lake
H. Fraser	Clerk, Red Lake	Clerk, Fort Smith
L. A. Martin	Relieving, Lac Seul	Clerk, Fort McMurray

NELSON RIVER DISTRICT

L. O. Bastow	Furlough	Manager, Cat Lake
W. G. McKinnie	Relief Mgr., Bearskin Lake	Assistant, Wabowden
S. H. Watson	Furlough	Enlisted
J. Dixon	Clerk, Churchill	Retired
D. Willis	Clerk, Caribou	Clerk, Eskimo Point
H. Flett	Furlough	Manager, Bearskin Lake

WESTERN ARCTIC DISTRICT

A. G. Figgures	Furlough	R.C.A.F.
W. L. D. Smith	Furlough	R.C.S.

ST. LAWRENCE DISTRICT

Name	From	To
A. David	Clerk, Blanc Sablon	Clk., Seven Ids (temp.)
H. A. Graham	Manager, Obijuan	Manager, Senneterre
T. D. Lindley	Manager, Senneterre	Edmonton Office
J. B. Tyrer	James Bay District	Manager, Grand Lac
D. O'Sullivan	Clerk, Pointe Bleue	Clerk, Bersimis
H. R. Cummings	Acting Manager, Grand Lac	Asst., Senneterre (temp.)

JAMES BAY DISTRICT

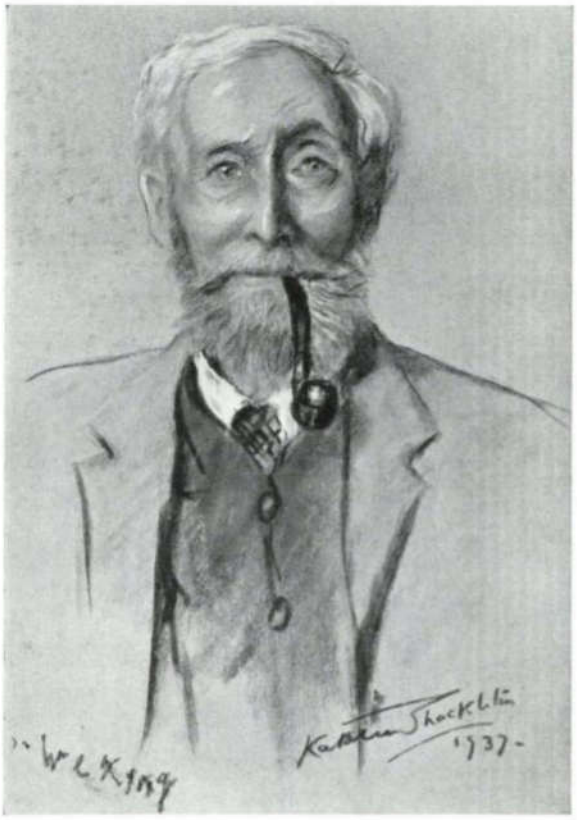
F. R. E. Donovan	Western Arctic District	Temp. Assistant, Minaki
D. R. Sheffield	Saskatchewan District	Asst., Lansdowne House
L. A. Martin	Lac Seul	Mackenzie-Athabasca
H. Fraser	Assistant, Red Lake	Mackenzie-Athabasca
C. H. Ellor	Winnipeg	Asst., Cochenour-Willans
L. O. Bastow	Furlough	Nelson River District
A. W. Scott	Relief Manager, Temagami	Manager, Lac Seul
R. Jeffrey	Sick leave	Summer Beaver outpost
R. A. Sanburn	Winnipeg Training School	Clerk, Moose Factory

SASKATCHEWAN DISTRICT

E. W. Hampton	Furlough	Manager, Cedar Lake
R. F. Garnett	New Employee	Clerk, Fort Alexander
E. J. Leslie	Fort Alexander	Relief Mgr., Lac la Ronge
W. M. Lee	Winnipeg Training School	Clerk, Berens River
T. W. Preston	Winnipeg Training School	Clerk, Beauval
G. Inkster	Winnipeg Training School	Clerk, Island Lake
I. M. Murphy	Winnipeg Training School	Clerk, Green Lake
E. J. McLean	Lac la Ronge	Furlough
D. Bryan	Winnipeg Training School	Clerk, Norway House
D. Herbert	Clerk, Berens River	Winnipeg Training School

To All HBC Fur Traders

Readers of *The Beaver* want to hear about your adventures in the North. We are offering prizes of $50, $30, and $20, for the three best true stories entitled "My most exciting experience in the Company service." Stories should be not more than 2,500 words long, preferably double-spaced typing, and must arrive at Hudson's Bay House, Winnipeg, by October 31, 1941. Illustrations will be welcome, but not obligatory. You can submit as many stories as you like. Judges will be Tom Gill, famous American writer; R. H. G. Bonnycastle; and the editor of *The Beaver*.



WILLIAM Cornwallis King is a familiar figure to *Beaver* readers, chiefly through the tales of his exploits told by Mary Weekes. Eight years before the Dominion of Canada took over the West, he joined the H B C, and for the next four decades he served it with energy and devotion. When he retired from the Service in 1903, he was nearly sixty. In December last this grand old man of the fur trade—last of the Commissioned Officers—died quietly in Winnipeg at the age of ninety-five.

Though an invalid during his last years, he had enjoyed much more than his full share of activity and adventure. Born in India, where his father was serving as a colonel of cavalry with the East India Company, he was sent to be educated at the famous Blue Coat School, and later to Sandhurst. There he met the sons of some H B C officers, and their tales of adventure in Canada stirred his imagination so, that he abandoned the Army for a career in the fur trade.

For forty-one years he carried on those traditions of loyalty, integrity, and courage for which the Company had become celebrated. He talked with men who had served the North-West Company in its heyday; and he knew many of the old giants of the fur trade who had carried out under Simpson the bloodless conquest of the West and North.

Remembering the part which the men of the Hudson's Bay Company played in governing most of this country before 1870, it might well be said in the words of Washington Irving that, with his going, "the lords of the lakes and the forests have passed away."

The Beaver is printed for the Hudson's Bay Company by Saults & Pollard Limited, Winnipeg, Canada, and the engravings are made by Brigdens of Winnipeg Limited



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Best Procurable

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BLANKETS
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